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NOTE.—The Report of the Food Adulteration Committee, Part II (1943), has been printed separately and copies can be had from the Secretary, Central Advisory Board of Health. The Memorandum on Anaemia in Pregnancy in India has also been printed separately.

List of persons who attended the fifth meeting of the Central Advisory Board of Health

- 1 The Honourable Sardar Sir Jogendra Singh, Member-in-charge, Department of Education, Health and Lands (Chairman)
- 2 Mrs S H Y Oulsnam, C I E, M C, I C S, Secretary to the Government of India, Department of Education, Health and Lands.
- 3 Major-General J B Hance, C I E, O B E, V H S, I M S, Director General, Indian Medical Service
- 4 Lieut Colonel E Catter, C I E, I M S, Public Health Commissioner with the Government of India (Member Secretary)

WAR DEPARTMENT

- 5 Lt Col H S Milne, M C, Assistant Director of Hygiene, Medical Directorate, General Headquarters
- 6 Wing Commander F Crawford, D R M O (H), General Headquarters.

RAILWAY DEPARTMENT (RAILWAY BOARD)

- 7 Dr H R Rushworth, Principal Medical and Health Officer, G. I. P. Railway, Bombay

GOVERNMENT OF MADRAS

- 8 Rao Bahadur Dr L Adishesan, Director of Public Health

GOVERNMENT OF BOMBAY

- 9 Major-General L H Candy, C I E, K H S, I M S, Surgeon General
- 10 Dr K A Gandhi, Director of Public Health

GOVERNMENT OF BENGAL

- 11 The Honourable Khan Bahadur Maulvi Jalaluddin Ahmed, Minister-in-charge, Public Health and Local Self Government Department.
- 12 Dr B Mookherjee, Director of Public Health.

GOVERNMENT OF THE UNITED PROVINCES

13. Rai Bahadur Dr A C Banerjee, C I E, Director of Public Health

GOVERNMENT OF THE PENJAB

- 14 Colonel R Hay, C I E, I M S, Inspector General of Civil Hospitals.
- 15 Khan Bahadur Dr A H Butt, Director of Public Health.

GOVERNMENT OF BIHAR

- 16 Rai Bahadur Dr. B P Mazoomdar, Director of Public Health.

GOVERNMENT OF THE CENTRAL PROVINCES & BERAR

17. Colonel A H. Harty, C I E, I M S, Inspector General of Civil Hospitals
- 18 Dr. R. L. Tuli, Director of Public Health.

GOVERNMENT OF ASSAM

- 19 Dr S H. Paul, Director of Public Health

NORTH-WEST FRONTIER PROVINCE

- 20 Colonel J P. Huban, O.B.E., I.M.S., Inspector General of Civil Hospitals.

GOVERNMENT OF SIND

- 21 The Honourable Dr Hemandas R Wadhwani, Minister-in-charge,
Medical and Public Health.
- 22 Lieut.-Colonel J E Gray, I M S., Inspector General of Civil Hospitals

GOVERNMENT OF ORISSA

23. Lieut.-Colonel A N Chopra, I M S., Director of Health and Inspector
General of Prisons

COUNCIL OF STATE

- 24 The Honourable Mr P N Saprta.

CENTRAL LEGISLATIVE ASSEMBLY

- 25 Sir Frederick James, O B E

INDIAN STATES

Hyderabad

- 26 Dr Mohamed Farooq, Deputy Director of Public Health

Mysore

- 27 Dr P Parthasarathy, Director of Public Health

Baroda

- 28 Mr Motilal C Desai, Member of the State Executive Council.

- 29 Dr N V Pandit, Sanitary Commissioner

Jodhpur

- 30 Dr. L. D. Sarronwala, Director of Public Health.

AGENDA

- 1 To confirm the proceedings of the fourth meeting held in Calcutta on the 26th, 27th and 28th January, 1942
- 2 To consider the Report of the Food Adulteration Committee
- 3 To hear a statement regarding the prevention of persons suffering from infectious diseases from travelling in public conveyances.
- 4 To consider a memorandum on Anemia in Pregnancy in India including Haematological Techniques, forwarded by the Indian Research Fund Association
- 5 To consider a memorandum on Post War Planning
- 6 (a) To consider a letter dated 28th December 1942, from the Secretary, Central Advisory Board of Education, containing a recommendation from that Board that the Central Advisory Boards of Education and Health, should jointly consider the problem of the prevention of blindness in this country at an early date
 (b) To consider a preliminary report, dated 7th April 1943, by Major Sir Clutha MacLennan on "Blindness in India" with a memorandum by the Director-General I. M. S.
- 7 To consider a report on the working of the scheme of the Bihar Government for the compulsory inoculation of pilgrims attending the Sita-marhi fairs in the years 1942 and 1943
- 8 To consider a report on the preventive measures taken in Baroda State against guinea-worm infection
- 9 (a) To consider a memorandum on the co-operation between Civil and Military authorities in respect of the sanitation of Labour Camps attached to constructions for Defence Services.
 (b) To consider a memorandum on measures for the prevention of diseases in areas surrounding aerodromes
- 10 To consider a summary of the replies received from Provincial and State Governments showing the action taken by them on the various recommendations made at the previous four meetings of the Central Advisory Board of Health.
- 11 To consider a memorandum on the appointment of a Director of Nursing Services in the Medical Department of each Province or State
- 12 To consider a memorandum on the proceedings and recommendations of the Food Conference of the United Nations held at Hot Springs, U. S. A., in May-June 1943
- 13 Any other business.

Proceedings of the Fifth Meeting of the Central Advisory Board of Health, held in New Delhi on the 4th, 5th and 6th October 1943

First day's proceedings

The Board met in the Committee Room of the Council House at 10-30 A.M. on Monday, the 4th October, 1943, under the chairmanship of the Hon'ble Sndar Sir Jogendra Singh, Member-in-charge, Department of Education, Health and Lands, Government of India.

The Chairman read out the following message from His Excellency the Viceroy:—

"When I spoke at the inaugural meeting of the Central Advisory Board of Health in 1937 I expressed the conviction that the Board would serve a useful purpose in affecting the health of the inhabitants of the Provinces and States in India. During the past five years provide an authoritative basis for the development of health administration in many directions and show that my confidence was justified. It is largely owing to the war and certainly no fault of yours that in many cases effect has not yet been given to your recommendations. We all are anxious to see after the war an era of determined effort to raise the Indian standard of living and I have no doubt that the work of the Board will be of great assistance to Provincial Governments in preparing their post-war planning programmes in the public health field.

"One of the main questions you have to consider at the present meeting is planning for this post-war development. Health administration, if it is to achieve any substantial results, demands a considered programme, and any attempt to deal piecemeal with the many and varied problems involved can but lead to a dissipation of effort and of financial resources. I would like to emphasise again in that connection the importance of securing that as our towns expand their housing and sanitation schemes are prepared on the right lines. It has been a great pleasure to me to authorise the appointment of the Central Health Survey and Development Committee which has recently been announced and I am convinced that it will produce results of the utmost value. Your work in the past and your deliberations at this meeting will I know assist that Committee in its task.

I intend to convey the above message to His Excellency on your behalf.

This was agreed to

The Chairman:

Gentlemen, we meet under the shadow of shortage of food, such as has not been known since India passed under the British Crown. Food, good nourishing food, is essential for health. The production of food in theory in any case is my concern; in practice it is the responsibility of the Provinces. It is a question for our politicians and publicists to consider whether the needs of our population can be met by an All India Food production policy or by dispersing India's economic unity. This is however a digression, the fact remains that our health programme can succeed which fails to provide good nourishment for all the people.

Before I pass on to the business of the day I feel I must convey our thanks to the Government of Mysore for their kind invitation to meet at Bangalore. We have not been able to accept ourselves of this invitation as I could not fit my dates with that of Mysore, the day is ours, but I thought it important to hold a meeting as early as possible rather than to postpone it to a later date. I am in a hurry to do things; a man at my age cannot trust the future. It is my hope that before the year 1944 ends to give the country a programme of agricultural development which would aim at providing nourishing food for all, a programme of health and housing aiming at improving living conditions and a programme of education aiming at equipping our whole population with knowledge. It is my hope that if our people are physically fit and mentally alert, there is nothing that can prevent their taking their proper place in the comity of nations, if political and economic integrity of India is maintained.

Gentlemen the agenda before you is a fairly heavy one, and you will wish to begin the discussions on it with as little delay as possible. So, I will only dwell for a moment over one or two items of the agenda. The one relates to an immediate problem, the sanitation of areas round military establishments. It is perhaps a sad commentary on the results of the efforts of the past half a century to improve sanitary and health conditions that it is necessary to take special measures and incur large expenditure to protect our troops from disease in their camps. But however unpalatable it may be, there is no doubt of the necessity. I hope that we may derive from the special measures being taken in these areas, experience which will be useful in the days of peace to come.

Another item relates to the problems which have to be tackled in the future—the question of post-war reconstruction. I think you will agree with me that of all the problems of the post-war period, none will be of more vital concern than that of raising the standard of health which implies a higher standard of living. Some say that this is an economic problem, that to secure better health the economic conditions of the people must be improved. That is only a half truth. A more balanced view would, I think, be that steps to improve economic conditions and measures to raise health standards must go hand in hand and are in fact to some extent complementary. Of the immensity of the task of securing any real improvement in health conditions, I need not speak. It is well known to you all. But it is a task which I am sure must be placed in the forefront of the post-war programme. I hope that the work of the Health Survey and Development Committee which I am appointing will be of material assistance to Provincial Governments as well as to us at the Centre in making reconstruction plans. If the problem is attacked with the resolution and determination that now goes to the prosecution of the war there should be no reason why a measurable advance should not be made within a reasonable time.

It will perhaps be too optimistic to hope that we may see the end of the present struggle before our next meeting but at least we can look forward with confidence to the day when we may be able to replace the National War Front by a National Health front and when the immense resources of men and material and the untiring energy and labour which we have had to be devoted to the present struggle can be turned to the task of the betterment of mankind.

Gentlemen, we can now begin with the agenda.

AGENDA ITEM NO. 1. TO CONFIRM THE PROCEEDINGS OF THE FOURTH MEETING HELD IN CALCUTTA ON THE 26TH, 27TH AND 28TH JANUARY, 1942.

This was agreed to

AGENDA ITEM NO. 2. TO CONSIDER THE REPORT OF THE "FOOD ADULTERATION COMMITTEE."

Lt.-Colonel E. Cotter, the Secretary, in presenting Part II of this report drew the attention of the Committee to some of the important recommendations contained therein. He said that the report completed the widely-intensive study of this difficult and rather complicated question of food adulteration and that it was the result of a wide collection of information from the different provinces and States. An important point recommended in the report concerned the regular submission of samples of food for examination by local bodies and that this should be spread over the months and over the year. If the collection of these samples was not properly spaced it would lead to defeating the Food Adulteration Act. Another point which the committee emphasised was the importance of quick examinations and reports of samples. He also referred to the question of condoning offences. Under this act he pointed out that when adulteration was discovered the case was listed and there was usually a delay of six months. By that time everybody had lost interest and the case was condoned. Recommendations had been made for tightening this up. The Committee had gone to the length of even suggesting the class of magistrates who should try such cases. The Committee also suggested that Provincial Governments should consider the question of appointing a special magistrate who could keep pace with the cases and in support of this pointed out that on one particular day in one city in this country there were as many as 4,000 cases under the Food Adulteration Act which had not been disposed of. The report also suggested that the Directors of Public Health should be vested with powers to supervise and control the working of this act in local administration on the lines of the law given in this matter by the Madras Government. Amongst other important recommendations contained in the report was the question of developing in each province a qualified and independent cadre of public health analysts with a reasonable rate of pay and also a reasonable status. The last item which he desired to stress was the question whether adulterated food could be covered by putting a label on the container. The Food Adulteration Committee was unanimous in saying that this was a bad practice. A large number of purchasers were illiterate and besides that it would be impossible to get a label which could be read and understood all over the country. Some of the statements printed on these labels were misleading and the Committee felt that something should be done and that section 6 of the Drugs Act should be followed in this case. Finally he requested the Advisory Board to accept the well thought out and reasoned recommendations made by the Committee to which he had made special reference as matters

Governments had not realised their responsibilities in these cases and did not help with funds to the extent they could have done. The Central Government could be similarly criticised if such powers were taken away from local bodies, it would lead to a lot of unnecessary criticism which would delay action, and which might prevent us from discharging our duties in the speediest manner possible. Mr. Sanyal drew particular attention of the members to recommendations Nos. 29 and 30 in the report where the Committee had suggested that Provincial Legislatures might be asked to request the Central Legislature to pass an Act for the control of food production, distribution and trade, and, if necessary, to supplement the administrative measures by some legal measures, in order that the production of foodstuffs might increase. He thought this recommendation to be very important as it had a direct bearing on the Government's food campaign and he expressed a hope that Provincial Governments would co-operate with Central Government in this matter.

Sir Frederick James stated that the report was extremely valuable and suggested that it be brought to the notice of the general public through broadcasting facilities at the disposal of the Government. It should not be kept in the administrative files of the central and provincial governments but should be widely published, discussed and written about. He drew attention to four main recommendations contained in the report: (a) Penalties imposed by magistrates upon those who adulterated the people's food were not deterrent at all, (b) the Director of Public Health should be given powers to control the working of this act, (c) the creation of a cadre of public analysts in each province and State, and (d) the passing of a comprehensive Food Act which would be applicable throughout British India.

M. C. Desai (Baroda) outlined the procedure adopted in Baroda State and said that he was in full agreement with the recommendations contained in the report. The percentage of adulteration found in the State was 40 to 50 per cent and although something was being done more remained to be done.

Rao Bahadur Dr. R. Adiseshan (Madras) while agreeing with the recommendations contained in the report suggested that the control of food production centres should also be carried out. Outlining the practice followed in his province he said that the Health Officers were virtually independent of the local boards or the executive authorities and that they had been vested with sufficient powers to enforce the provision of this act. They had experienced difficulties in the matter of collection of samples even during the course of a month. Very often, on account of difficulties caused by the prevalence of epidemics, it was not always feasible to spread out the collection of samples. To prevent tampering with samples during their transit to the laboratories he suggested that a mischief proof sampling equipment should be devised and brought into effect with as little delay as possible.

Dr. B. Mookherjee (Bengal) outlined the procedure adopted in Bengal in the collection and examination of samples and pointed out some of the difficulties experienced in his province. He suggested the destruction of all old samples in the possession of grocers was desirable to prevent confusion. In Bengal the Government had appointed a select committee to consider the Bengal Pure Food Bill but as the bill had not been finally approved by the Legislature he was unable to comment upon it.

Chairman: "Sir Frederick James has raised the question of publicity. If the Board is agreeable I do not think we should keep the press out. In the case of all nation-building subjects, the greater the publicity and public interest, the greater the support we can get, and we might invite the press so that the fullest publicity could be given to these discussions."

This was agreed to.

Raj Bahadur Dr. A. C. Banerjee (U. P.) said that he was a member of the committee and that he agreed entirely with the findings and strongly supported the recommendations contained therein. He hoped that his province would accept those recommendations which were not already in practice in the United Provinces. He emphasised the necessity for the proper taking.

in connection with 'Agmark' products to take samples and help the local bodies in the working of this Act. He was of the opinion that adulteration of foodstuff was generally practised in urban areas. In rural areas the producer, who was the consumer would not adulterate what he proposed to eat himself though this did not necessarily apply to the surplus which he proposed to send to the market. The chief offenders were the middleman or the trader who knowing the identity of the articles in their markets were tempted to adulterate material collected from rural areas. He thought that the present Act would go a long way to solve this problem and he supported the proposal whole heartedly.

Major General R. H. Candy (Bombay) said that, so far they had heard, the various difficulties encountered during the actual application of the Act. He, however, suggested that the Board should make some reference to the necessity of getting public opinion to get on the various food trades. These latter were highly developed in Bombay city for instance the control of foodstuffs is in the hands of the co-operative big merchants and the several thousand petty merchants who depend upon these big merchants are extremely ignorant and ignorant. During the last three or four months some efforts had been made by the officials to try and get at these petty merchants and consolidate them into one or two or even half a dozen co-operative societies with whom negotiations could be conducted and he suggested that the Board should place emphasis on this point. The need in his opinion was not only to meet the food traders but also to have a regular trading body with whom negotiations could be opened and instructions communicated. Most of these petty traders did not know the Act. He heartily advocated the appointment of public Analysts and said that these men need not be medical men.

The Chairman hoped that Provincial Governments would make their problems of health and nourishment their primary concern. If they gave their wholehearted attention to these matters he felt sure that the District Boards or Local Boards would also follow suit. He also agreed with General Candy that they needed more education about the laws of health and food rather than an armoury of penalties and more stringent laws. If they could raise the standard of living, provide model houses and give greater publicity to what they intended to do and destroy for ever the purdah that shrouds their deliberations, they would be able to bring to the notice of the public the need of having better food. He confessed with regret that so far politics had taken up a great deal of the time of our politicians and publicists and that problems which affected the health and education of our people had been neglected. He hoped that if greater publicity were given to these problems then the Centre as well as the Provinces would turn their attention more to things that matter and these were better health, better food and better living conditions. He also expressed a hope that the new Health Committee which had just been appointed would give them a programme of improvement of health conditions in villages. He agreed with Dr. Tuli that there was good food in villages and that it was only necessary to analyse food in towns. He promised to see that the recommendations of this committee would be brought forcibly to the notice of Provincial Governments to give effect to them.

Sir Frederick James (Central Assembly) requested the Chairman to attach to the resolution a paragraph dealing with the question of publicity and the education of public opinion as well as a paragraph on the organisation of food trades as pointed out by Major General Candy.

The Chairman agreed.

The resolution as amended was carried.

AGENDA ITEM NO. 3 TO HEAR A STATEMENT REGARDING THE PREVENTION OF PERSONS SUFFERING FROM INFECTIOUS DISEASES FROM TRAVELLING IN PUBLIC CONVEYANCES.

The Chairman said that it was only for information and that no discussion was necessary.

in tackling it. He hoped that a Central Committee would be appointed for post-war planning and that all provinces would co-operate with it.

The Honourable Mr. P. N. Saprú (Council of State) said that he attached very great importance to economic standards. If the standard of living of people were to be raised he felt sure their health would also improve. There were, of course, exceptions to the rule and that required education of public opinion along the right lines. Unless that was done so as to create a co-operative instructed public it would not be possible to achieve their aim whatever the health organisation might be. He stressed the necessity of providing medical aid to those who needed it. They should have a machinery whereby it might be possible for the humblest individual to get free medical attention. He pointed out the necessity of a comprehensive survey of the health conditions in the country before any plans could be formulated for post-war work. He stated that there was a great danger of epidemics of cholera, typhoid, malaria and other diseases breaking out in this country after the war and stressed the necessity of taking effective action immediately. He suggested that the question of psychological therapy might need special attention and said that a Chair in psychological therapy should be established.

Rao Bahadur Dr. R. Adiseshan (Madras) said that the subject of post-war reconstruction was under the active consideration of his Government and a committee had been appointed to consider the whole subject. As regards public health an elaborate scheme had been submitted.

Dr. B. Mookherjee (Bengal) stressed the necessity of starting a scheme for the improvement of health immediately and gave a brief description of the proposed scheme for improving the health of the rural population in his province. The scheme envisaged the building up of 5,000 dispensaries each with a doctor, a health assistant and a dais. There was also a scheme for the introduction of sickness insurance. He said that whole scheme was still under the consideration of a sub-committee and that full details were not available.

Rai Bahadur Dr. A. C. Banerjee (U. P.) stated that an officer from the Government of India had been appointed to formulate a scheme and his government were considering the whole subject with a view to decide on what lines the work should proceed.

Rai Bahadur Dr. B. P. Mazumdar (Bihar) said that his Government were also considering a scheme for post-war developments and suggested the necessity of going ahead with the work as soon as possible.

Dr. S. H. Paul (Assam) informed the members that a committee had been formed in his province and he hoped that some scheme would be introduced very shortly.

Dr. P. Parthasarathy (Mysore) in giving an outline of the work done in Mysore State stated that the public health department began to function in 1929 and that in 1936 health centres were started with the co-operation of the Rockefeller Foundation. A comprehensive statistical study of the whole State was undertaken and had revealed a very sad state of affairs. However, several health units were now at work in the State and it was hoped that health work would develop on proper lines.

Dr. Mahmood Farooq (Hyderabad) stated that the Public Health department in his State had formulated a nine year plan for the improvement of public health in the State. As part of the postwar reconstruction programme his Government were in complete agreement with the recommendations made by the Central Advisory Board of Health from time to time and the whole programme was to be considered very shortly.

Lt.-Col. A. N. Chopra (Orissa) said that unless they knew the financial conditions of the provinces would be they could not commit themselves to anything. Everything depended upon finance and if they could money they would expand their activities in no time.

Colonel J. P. Huban (North-West Frontier Province) said that the Government were considering post-war reconstruction and that when a permanent

that the appointment of a Drugs Committee was under consideration. He also agreed with Col Hays suggestion that a well fed population would solve many of their problems. General Candy had drawn attention to a great evil in the existing dispensary and hospital arrangements and Sind had also drawn attention to the question of the provision of more doctors and nurses. He hoped that the new committee which had been appointed would give special attention to the question of the need for more doctors and nurses and of improving the education.

AGENDA ITEM No. 16. TO CONSIDER A LETTER DATED 28TH DECEMBER 1942 FROM THE SECRETARY CENTRAL ADVISORY BOARD OF EDUCATION CONTAINING A RECOMMENDATION FROM THAT BOARD THAT THE CENTRAL ADVISORY BOARDS OF EDUCATION AND HEALTH SHOULD JOINTLY CONSIDER THE PROBLEM OF THE PREVENTION OF BLINDNESS IN THIS COUNTRY AT AN EARLY DATE.

(a) TO CONSIDER A PRELIMINARY REPORT DATED 7TH APRIL 1943 BY THE COL SIR CLUTHA MACKENZIE ON "BLINDNESS IN INDIA" WITH A MEMORANDUM BY THE DIRECTOR GENERAL, INDIAN MEDICAL SERVICE.

Colonel (Now Major General) J. B. Hance, (Government of India) drew the attention of the delegates to the report of Lt-Colonel Sir Clutha Mackenzie and the note thereon by Sir Gordon Jolly which had been circulated. He said that there were two things in this item which required consideration. The first was a suggestion that there should be a joint committee of the Central Advisory Boards of Education and Health who should meet and investigate the problem of the prevention of blindness and the second was the consideration of Sir Clutha Mackenzie's report. His late Majesty the King Edward VII had once said "if preventible why not prevent." But before this task could be undertaken it was very necessary to have clear ideas on the cause or causes of the disability which was hoped to prevent. India possessed ophthalmologists unsurpassed in experience and devotion with a large store of accumulated knowledge on the causation of blindness. However, their experience was confined to the local areas in which their activities had lain and there was no comprehensive review affecting the vast country as a whole. Something more comprehensive was required because such a review was not only essential but overdue. It was, therefore, suggested that we should have a committee of educationists and medical men who could consider the various problems namely medical, educational and rehabilitation. He felt sure that their report would be of very great value to Provincial Governments and Health Departments in formulating their own approach to the task of preventing blindness in India. On the question of treatment and rehabilitation of the actual blind very little had been done except through the efforts of private uncoordinated enterprise and perhaps in some cases to the enterprise of those who had themselves lost their sight. He agreed with Sir Clutha Mackenzie when he said that the time was ripe for giving the blind wider and better welfare services and an improved position in the community. Although the number of men who had become blind in the present war was up to now happily considerably smaller than in the last great war, such cases had occurred and were occurring and this imposed upon both Government and the public a duty of doing everything that modern knowledge and skill could do to compensate them for the sacrifice of their sight in their country's cause. He sincerely hoped that the report when completed would be of great assistance to all the Provincial Governments and he had no hesitation in recommending to the Board the acceptance of the resolution which was placed before them.

The Hon'ble Dr. Hemandas R. Wadhvani (Sind) in supporting the adoption of this item briefly outlined the position as regards prevention and treatment of the blind in Sind. He said that trachoma was the main cause of blindness in his province and that although much was being done a lot more remained to be

had been framed he thought that it would be put into operation as soon as might be possible.

Khan Bahadur Dr. A. H. Butt (Punjab) gave a short description of the work that had been done in his province. His Government had started a scheme last year and several committees had been appointed to consider the question from various aspects. He himself had submitted a scheme which included every aspect of rural and urban sanitation. His Government was already alert to this very important question and that they would do whatever was possible with the funds available. He only hoped that the Central Government would give them some money to go ahead with the reconstruction scheme which had already been submitted by him.

Colonel R. Hay (Punjab) pleaded for speedier action by the Central Government. He said that he agreed with Colonel Chopra that the whole scheme depended upon the funds available. He only hoped that Government funds would not be dissipated but that the money would be spent on re-organisation and the development of education during a course of a quarter of a century. If the people were well fed and well educated they would demand pure food, proper and adequate nursing services etc.

Dr. L. D. Saronwalla (Jodhpur) said that this question was before a sub-committee appointed for the purpose by his State.

Dr. R. L. Tuli (Central Provinces) gave an outline of the existing organisation in the province and at the centre and stressed the necessity for a properly reorganised Public Health Service in the country. He suggested the creation of a central institute of public health under the control of the Public Health Commissioner who could draw upon the experience of experts in the various branches of public health and who could act as a valuable liaison officer between the provinces and the centre. He also suggested the creation of a central public health service which could provide expert officers who could tackle special problems of an all India importance, as for example cholera epidemic, malaria etc. He also stressed the necessity of small health units which could work amongst the rural areas in every province.

Major General R. H. Candy (Bombay) said that his government was already engaged on a general reconstruction policy and that they were doing all that was possible. Their fund stood at 85 lakhs but whenever any request was made by the Public Health Department they got a reply couched in courteous language but extremely indecisive. It was not possible for them to prepare any kind of estimate as they did not know what the impact of the I. A. M. C. was going to be on the standards of salaries required by medical officers, and as an example he mentioned the rise in the salaries of all services after the end of the last war. He felt that after this war also salaries would be fixed at a much higher figure than the pre-war figure. He stated that a dispensary doctor disposed of anything from three hundred to six hundred patients a day, which meant on an average 25 to 50 patients per hour. He asked the Board what possible attention a patient could get if he was looked at for about a minute. He, therefore, stressed the necessity of supplying technicians with some scientific training to these dispensaries so that a proper diagnosis could be made.

Lieut.-Colonel J. E. Gray (Sind) suggested the creation of more health centres and medical colleges to meet the shortage of doctors and nurses.

The Chairman in winding up the debate drew the attention of the members to some of the salient points which had been brought forward. He first stressed the necessity for creating some funds for reconstruction. He said that after the war is over people would get busy with retrenchment schemes rather than providing money for development schemes. Hence the necessity for every Province and State to start the creation of a fund for carrying out plans which were now under consideration. The Central Government would always help the provinces with money, guidance and leadership. He said that the Hon'ble Mr. Sapru had drawn their attention to the matter of the supply of drugs, and

Khan Bahadur Dr. A. N. Butt (Punjab) gave a brief review of the work done in his province. He said that the whole question was considered by a conference which was held at the instance of his government in 1932. A Provincial Advisory Committee was formed which issued propaganda material which was circulated to schools and Health Departments. Early this year another conference was called in Lahore under the chairmanship of the Honourable Minister for Education in the Punjab when Sir Clutha Mackenzie who was present gave his advice on the various aspects of the question. As a result of this a committee was formed and a questionnaire was drawn up and circulated to all district Health Officers with a view to find out the incidence of blindness, its causes and the action taken in regard to treatment and prevention. As soon as all the data were collected further action would be taken. He welcomed the proposal with a proviso that his Government should not be involved in any financial commitments.

Dr. L. D. Sarronwala (Jodhpur) said that his government would support the proposal.

Col. A. H. Harty (C. P.) said that although there were government hospitals and blind relief associations in his province they were woefully lacking in measures for the blind and he felt quite sure that his government would support all these proposals.

Major General R. H. Candy (Bombay) supported the proposal.

Chairman in winding up the debate said that the plea for central finance made by Sir Frederick James would be carefully examined and that suggestion of Dr. Rushworth to strengthen the committee would also be carefully borne in mind. He felt sure that this committee would do very useful work when appointed and the sight of many people would be restored.

Sir Frederick James enquired as to how long Sir Clutha Mackenzie's appointment would last.

General Hence said that it would last for about a year but that he would verify.

AGENDA ITEM NO. 7 TO CONSIDER A REPORT ON THE WORKING OF THE SCHEME OF THE BIHAR GOVERNMENT FOR THE COMPULSORY INOCULATION OF PILGRIMS ATTENDING THE SITAMARHI FAIRS IN THE YEARS 1912 AND 1913.

The Chairman requested **Dr. B. P. Mazoomdar** to explain the position.

Dr. B. P. Mazoomdar (Bihar) stated that in accordance with Resolution passed by the Central Advisory Board of Health at its third meeting in July 1910 his Government decided to carry out indirect compulsory anti-cholera inoculation at Sitamarhi in 1912. A scheme was prepared by him at an estimated cost of Rs. 9,300. The Epidemic Diseases Act was introduced and the mela was held in the Sitamarhi area from March 21 to April 9, 1912. A considerable amount of propaganda was done in some districts of North Bihar before the actual date of the opening of the mela. There was at once a strong opposition to the enforcement of cholera inoculation and he regretted to mention the fact that some of his staff were assaulted and that various kinds of rumours were spread by mischievous people with a view to harassing their efforts in this direction. Instead of about 50,000 to 70,000 people who used to attend the mela every year only 25,000 people visited the place and of these he was able to inoculate 21,681—about 80—85 per cent. He was happy to state that only five suspected cases of cholera had occurred during the period of the festival.

In 1913 the mela took place from the 4th April to the 20th April and his Government introduced the scheme again. This time they had 70,000 visitors out of whom 65,280 were inoculated—about 90 per cent. A considerable amount of propaganda work was carried out before the actual date of the mela and this year he was happy to say that there was very little opposition. Inoculations were carried out at ten posts, at railway stations, in the running trains and in the mela area. Only six cases of cholera occurred and there was no

outbreak of the disease even after the mela was over. He felt sure that the measure was of very great importance and he hoped it would be adopted in other places where large melas were held every year.

The Honourable Dr. Hemandas Wadhvani (Sind) said that his Government had decided to introduce compulsory inoculation initiated by Bihar.

The Honourable Mr. P. N. Saprú (Council of State) congratulated the Director of Public Health, Bihar, on the work that was being done by him and he approved of the resolution.

No remarks by Sir Frederick James and Mr. Motilal C. Desai.

Rao Bahadur Dr. E. Adiseshan (Madras) said that as far as his province was concerned the necessity for adoption of the system had not arisen as under the provisions of the Madras Public Health Act the Government could straightaway declare a festival centre as an infected area or threatened area if there was any risk. He, however, congratulated the Bihar Government on what he considered it to be a really marvellous achievement.

Dr. B. Mookherjee (Bengal) said that it was very difficult to carry out compulsory inoculation in all fairs and festivals that took place in Bengal every year. He gave some information about the big Gangasagar mela which was held in his province every year. As it was not possible to get many doctors to do inoculation work during the rush period he enquired of the Board whether it would be permissible for him to utilise the services of medical students for this purpose. He had great pleasure in supporting this resolution.

Rai Bahadur Dr. A. C. Banerjee (U. P.) stated that in his province fairs were of an All-India nature and he particularly drew attention to the difficulties which he experienced at the Kumbh Mela which attracts every year anything from 10 to 25 lakhs of people. Although much had been done much more remained to be done and he hoped that the Public Health Departments of the neighbouring provinces from where these pilgrims came to Allahabad would co-operate with him in seeing that all pilgrims from other areas were compulsorily inoculated before they proceeded for the Kumbh mela. It would greatly simplify his work and leave them sufficient time to do the rest.

Dr. S. H. Paul (Assam) stated that they had no such fairs in his province as no big melas were held. He would however like to try this experiment.

Dr. H. R. Rishworth (Railway Department) No remarks.

Dr. Parthasarathy (Mysore) gave an incidence of compulsory cholera inoculation work carried out in his State where 15,000 people attending a fair were all inoculated. The experiment was carried out in other places also quite successfully.

Dr. Mohamed Farooq (Hyderabad) stated that his country was a land of fairs and festivals as not less than 25,000 fairs took place every year in his State. It was not possible to institute compulsory inoculation measures in all fairs but as far as those people who went to the big Tandharpur mela, he was happy to state that 24,000 out of 25,000 people were inoculated against cholera. Hyderabad State had done its best as far as this fair was concerned and he felt sure that this system would be gradually introduced in other places.

Lt.-Col. A. N. Chopra (Orissa) described the measures carried out by him in the big fair at Puri which was held that year. Nearly 80,000 pilgrims out of a total of 1 lakh were inoculated and there was no outbreak of cholera after the fair.

Col. J. P. Huban (N. W. F. P.) stated that there was no such problems in the North West Frontier Province and that compulsion was not necessary as traders who came from Afghanistan accepted inoculation without the slightest difficulty.

Khan Bahadur Dr. A. N. Butt (Punjab) described the measure adopted in the last sun eclipse fair at Thanesar. That fair attracted anything from 5 to 6 lakhs of pilgrims and although compulsory inoculation of pilgrims was

not done he was happy to state that from the other sanitary measures taken by his department there was only one unreported case of cholera who recovered quickly. In view of the fact that a considerable measure of success attended the Bihar Government's measures, he would approach his government for the compulsory inoculation of all pilgrims visiting Thanesar fair next year. He would like to go a step further and suggest that all those pilgrims who come to the fair without any inoculation certificate should be prosecuted.

Dr. L. D. Sarronwala (Jodhpur) stated that there were two very big cattle fairs held in Marwar every year and described the measures taken by the state authorities in preventing the spreading of the disease by compulsory inoculation.

Mr. Motilal G. Desai (Baroda) No remarks.

Dr. R. L. Tuli (O. P. & Berar) stated that his province had not been able to give effect to the recommendations of the Central Advisory Board of Health on the subject of mass inoculation although every facility was given to intending pilgrims for free cholera inoculation. They had so far not enforced compulsory inoculation against the disease on pilgrims attending the fairs. He however entirely associated himself with the proposal.

Major General E. H. Candy (Bombay) while extending congratulations to the Bihar Govt. drew the attention of the members to the work carried out by the Government of Bombay at the big Pandharpur fair in his province. He stated that Bombay was the first province that carried out this work. In 1936, 91,000 pilgrims attended the fair and in 1940, 173,000 and their experience during the last 7 years had shown that it was possible to achieve 100 per cent. inoculation. People were gradually becoming aware of the benefits of inoculation and in 1942 57,000 people arriving at the fair produced certificates of inoculation and 79,000 were inoculated on the spot that year. They were taking similar measures in the case of big fair at Nasik which was held after every ten years and he anticipated similar success at that fair.

Lt.-Col. E. Cotter (Secretary) stated that he was glad to learn from the members that something had been accomplished on the question of indirect compulsory inoculation of pilgrims assembling at big fairs in India. When the question was discussed in 1939 and 1940 general doubts were expressed about the practicability of the scheme but after he saw the working of the scheme in connection with the Pandharpur festival his doubts were dispelled. He hoped that the District Medical Officers and Directors of Public Health would try and impress on their governments the advisability of this measure. They must, of course, be prepared for opposition in the beginning but he felt sure that they would get hearty and full co-operation from all concerned once they realised the benefits of this measure. What was required was good propaganda and a reasonable amount of tolerance to opposition in the beginning. He also drew the attention of the members to the fact that inoculation did not immediately confer immunity from cholera. Immunity was generally developed after 4 to 8 days and he welcomed the news that pilgrims now-a-days were inoculated long before they leave their districts to attend festivals. Inoculations should be arranged well before hand and that could be done if we gave publicity in the areas from where the pilgrims came. There was no doubt that the incidence of cholera had come down considerably and he hoped that it would gradually disappear.

Raj Bahadur Dr. B. P. Mazoomdar (Bihar) enquired whether in the absence of properly trained medical men to carry out these inoculations anyone else trained to give inoculation could be utilised for the purpose.

Lt.-Col. E. Cotter (Secretary) replied that the Central Advisory Board of Health had accepted that inoculation of this nature could be done by sanitary inspectors with the requisite training.

AGENDA ITEM NO 8 TO CONSIDER A REPORT ON THE PREVENTIVE MEASURES TAKEN IN BARODA STATE AGAINST GUINEA-WORM INFECTION

Mr. M. C. Desai (Baroda) drew the attention of the committee to a machine invented in his state for treating infected wells with lime and explained to the members present the method employed. The work had been carried on for the last four or five years and the results achieved so far were very satisfactory. In several villages the disease had practically disappeared with this method of treatment.

The Honourable Khan Bahadur Maulvi Jalaluddin Ahmed (Bengal) No remarks.

The Honourable Dr. Hemandas R. Wadhvani (Sind) stated that guinea-worm infection was fortunately not prevalent in his province but he supported the views of the Baroda Government and stated that every effort must be made to eradicate the disease wherever it existed.

Rao Bahadur Dr. R. Adishesan (Madras) said that in his province it was a very important problem as the disease existed in 10 out of the 21 districts in the presidency. It was a disease of rural areas and he felt that although liming method might have given good results in Baroda, in his province the biological method had given considerable success. The method consisted in introducing tiny fish which could eat up the cyclops which caused the disease. It had been stated in the report that the river Banas was also infected. This was the first time he had come across a river being infected with guinea-worm and he would like to know if similar experience had been recorded in any other province in the country.

Dr. B. Mookherjee (Bengal) said that there was no guinea-worm infection in Bengal. He however recommended the introduction of a large number of fish in each well so that the cyclops could be removed quickly.

Rai Bahadur Dr. A. C. Banerjee (U. P.) said that guinea-worm was not a problem in his province.

Rai Bahadur Dr. B. P. Mazoomdar (Bihar) said that there was no infection of guinea-worm in his province.

Dr. S. H. Paul (Assam) said that there was no problem of guinea-worm in his province.

Dr. P. Parthasarathy (Mysore) stated that control of guinea-worm was started in his state as early as 1933. The late Dr. Narasimhamurti during the course of his tour in some of the infected villages found some of the wells free from cyclops and a further investigation revealed the presence of tiny fish which devoured the cyclops. Since then similar fish was introduced in other wells with the result that the disease more or less disappeared from the infected villages. It would be advisable he said to convert every step well into a draw well wherever possible and to carry on with biological control.

Dr. Mohamed Farooq (Hyderabad) informed the members that this infection was prevalent in four districts in his State. An experiment with lime was carried out in disinfecting the water. In some of the wells it was found that cyclops disappeared within four hours of the treatment but they reappeared after a week and that was perhaps due to re-infection of the step wells which were very common in those districts. In order to eradicate this disease they had drawn up a policy of converting all step wells into draw wells.

Lt.-Col. A. N. Chopra (Orissa) supported the resolution.

Col. J. P. Huban (N. W. F. P.) No remarks.

Khan Bahadur Dr. A. H. Butt (Punjab) stated that the infection was present to some extent in eight districts in the Punjab and that propaganda against this disease was being carried on.

Dr. L. D. Sarronwala (Jodhpur) stated that it was a big problem in his state and that infection was prevalent in nearly 800 villages. People in the State depended upon open tanks containing rain water, as the water in most

of the wells was brackish. The biological method was tried in some tanks but as these tanks dry up during the summer the fish also die and the whole process had to be done over again. A scheme for sinking wells in every village was prepared and a benevolent fund had been started. It is hoped that something more useful would be done in the State in future.

Dr. N. V. Pandit (Baroda) stated that lime control had been systematically employed in his State for the last six years. From experience it had been found that 8 lbs. for each well was enough to destroy the cyclops for the whole season and that the treatment was very useful in reducing the percentage of infection in the villages. In the memorandum circulated to the members it had been mentioned that ammonia chloride was given for a week or ten days in ordinary cards and that it was enough to reduce the swelling in many cases. He would like to draw the attention of the members to this suggestion because it could be used effectively in villages where there are hardly any roads. The biological method had not been tried so far but the difficulty was that the wells dried up in the summer and they did not know how to keep the fish alive.

Dr. R. L. Tuū (C. P.) stated that in his province 13 districts had returned sporadic cases. The infection was there but the problem was not very acute. They had tried various methods to eradicate the disease but so far had not met with complete success. He promised to utilise the suggestion made in the report and hoped that some benefit would result from there.

Dr. K. A. Gandhi (Bombay) said that there were only two districts in Bombay Presidency which had reported infection. They had tried all the methods that had been stated so far and his government had finally decided that all step wells should be converted into draw wells.

The Chairman congratulated the Baroda Government on this pioneer work and hoped that the control of guinea-worm would be accomplished. The work had made a good start and he hoped that it would be carried on.

Second Day's Proceedings.

AGENDA ITEM NO. 12—TO CONSIDER A MEMORANDUM ON THE PROCEEDINGS AND RECOMMENDATIONS OF THE FOOD CONFERENCE OF THE UNITED NATIONS HELD AT HOT SPRINGS, U.S.A., IN MAY-JUNE, 1943.

Dr. W. R. Aykroyd was specially invited to give the members present some idea of the Food Conference held at Hot Springs, U.S.A. He stated that in the note which he had presented to the Board he had tried to summarise the most important conclusions of the United Nations Food and Agricultural Conference so far as they had a bearing on public health. In the first place the conference had strongly emphasised the importance of nutrition in public health. The conference had emphasised that much disease was caused directly or indirectly through malnutrition and that if the diet was improved general health, physical efficiency and capacity for work would also increase. It was, therefore, necessary that public health people should pay the closest attention to nutrition which had become a recognised department of public health. Public health programmes should be adjusted so as to give due place and weight to activities in the field of nutrition. The note prepared by him contained some of the recommendations made by the Hot Springs Conference and he referred briefly to some of these.

(a) Deficiency diseases.—There are a number of deficiency diseases in India which represent serious public health problems and which require study and vigorous attack, for example beriberi in certain parts of Madras, osteomyelitis in the north, goitre in the Himalayan foothills and a number of other important diseases.

(b) The Conference had emphasised the importance of paying special attention to the nutrition of what are called vulnerable groups, that is to say such persons as pregnant and nursing women, infants, pre-school and school children all of whom required exacting dietary requirements and were particularly likely

to suffer from the ill-effects of malnutrition. The Nutrition Advisory Committee of the Indian Research Fund Association in considering last week rationing schemes in India recommended that special attention should be paid to the needs of these groups in rationing schemes, and that as far as possible available milk supplies should be reserved for expectant and nursing mothers and children. It had also recommended the immediate development of school feeding schemes to supplement children's rations.

(c) The United Nations Conference had also referred to national nutrition organisations and committees. In India a committee of this nature was founded in 1936 by His Excellency the Viceroy and had functioned since then. Its membership was comprehensive and it was qualified to deal with a wide range of subjects in connection with nutrition and its practical applications. The United Nations Conference had recommended that a worker or workers with specialised training in nutrition should be included in each major public health department. The Indian Nutrition Advisory Committee had emphasised that point for a number of years and certain provinces in India already had full time nutrition workers, he wanted to see one in every province in the public health department. At the last Nutrition Advisory Committee the need for such workers particularly at the present time had again been stressed in the following words:

"The present food crisis has further emphasised the importance of having trained nutrition officers attached to the public health departments in all provinces. The lack of such officers in many provinces has seriously weakened the organisation needed for dealing with the urgent problems which have arisen in connection with the food situation."

He requested the board to support this recommendation of the employment of provincial nutrition officers and the establishment of provincial nutrition committees.

(d) The United Nations Conference had stressed the necessity for basing agricultural policy on the nutritional requirements of the population. The Indian Nutrition Advisory Committee had taken a practical step in that direction by including in its membership the Agricultural Adviser and the Animal Husbandry Expert. The Hot Springs Conference had repeatedly emphasised this question of the association between the Agricultural and Nutritional policies. It had appointed an international food and agricultural organisation which would come into being at the end of the war. The duties and functions of this new organisation were being planned by an interim commission in Washington under the chairmanship of the Agent General of India, Sir G. S. Dhillon. It is hoped that this international organisation would link up with national nutrition committees in different countries in the world.

Representatives of 44 nations were present at the Hot Springs Conference and they described what had been done in their respective countries. He felt that the work done in India was good in comparison with countries outside western Europe and north America. A considerable amount of information on the food problem had been accumulated as a result of research over a number of years. What was now required was the question of giving a greater degree of practical application to these findings.

The Hot Springs Conference had been criticised as highly utopian or as the American press called it starry eyed. Certain critics had called the report a string of platitudes. He, however, felt that the report contained a great deal of good sense particularly as far as nutrition was concerned. There was food shortage all over the world which would persist for some years after the war and it was therefore necessary that in planning any scheme for post-war reconstruction full weight should be given to the findings of the United Nations Conference and he expressed a hope that the Central Advisory Board of Health would express its general approval of the findings and recommend that full attention should be given to these in the designing of reconstruction programmes.

The Honourable Khan Bahadur Maulvi Jalaluddin Ahmed (Bengal) while thanking the previous speaker said that the problem in Bengal at present was not so much one of nutrition as of import of food. They were quite aware of the necessity of nutrition developing on the lines suggested but their difficulty was that rice being the staple diet in Bengal it was a very difficult thing for them to substitute it with other cereals. The agriculture department in his province had launched a vigorous grow more food campaign, and they hoped to produce rice substitutes which would not impair the people's health. He would be very happy to convey the suggestions of Dr. Aykroyd to Bengal.

The Honourable Dr. Hemandas R. Wadhvani (Sind) stated that he had appointed a nutrition advisory committee in his province last year consisting of experts from the medical, public health and agriculture departments who were paying special attention to the availability of different foodstuffs in different areas in Sind. The Government had also appointed a special committee to enquire into the nutrition and health of the school children and the Karachi Municipal Committee were providing additional milk diet particularly to very poor boys in schools who could not afford it. He suggested that the teaching of domestic science in girls schools should be made compulsory and agreed with Dr. Aykroyd that every province should have a trained nutrition officer who could advise them on this problem which was the most important.

The Chairman drew the attention of the Board to one or two points raised by Dr. Aykroyd. He said that if the world needed a united world policy on agriculture and nutrition India he felt sure needed it much more. At present nutrition work was carried out at Cooch. What was needed was a vital centre here and the co-operation of the provinces who would follow the policy laid down by the centre. If this was done both the shortage of food and the nutrition problem would acquire reality.

The Honourable Mr. P. N. Saprú (Council of State) stated that the first thing which struck him was that out of 44 nations which met at the Hot Springs Conference India was the only dependent country. He hoped that in the post-war world India's point of view would be represented by a government which would be national in composition and character. The second point which struck him was that the discussion was taking place at a time when there was a grave food crisis in Bengal and certain other parts of the country. It was not his intention to go into the causes of that scarcity for which an indication of a possible solution had been advanced by Dr. Aykroyd. He had suggested that the world had shrunk and that they were now thinking in terms of interdependence in matters of food, and that the Hot Springs Conference was an indication of that interdependence. He felt that the centre must have greater control over food production and food distribution and that having regard to the needs of the Indian population, it should not allow the provinces to run riot.

He congratulated Dr. Aykroyd on his very lucid statement, and stated that the report revealed a close relation between proper food and health. It had been suggested that the report of the Hot Springs Conference was a string of platitudes but some of the truest statements in the world were platitudes. Poverty invariably meant a poor and insufficient diet and a raising of the economic standard of the Indian people was a first essential in improving nutrition. Dr. Aykroyd had made a reference to food deficiency diseases. It was, therefore, necessary for them to ascertain the extent of the prevalence of such diseases in the country. If they were going to aim at greater national efficiency they could not ignore the problem of nutrition. The other point which he would like to stress was the supply of milk to expectant mothers and children. Dr. Aykroyd had told them about the national nutrition organisations in other countries and although they had a nucleus of such an organisation he would recommend a wider basis to the composition of that committee. He would like to see the interests of the consumers represented on that organisation. He would suggest to the Government of India the desirability of enlisting the co-operation of the All-India Medical Council in this

activity. As regards the question of nutritional propaganda and education he would like to point out that this work had to be adapted to the circumstances of each country. India was a vast sub-continent and the same diet was not taken all over the country. They would have to find out the nutritional values of various foodstuffs consumed by different classes and communities in this country and suggest to them the manner in which those values could be increased. He fully agreed with the suggestion that there should be a close collaboration between health, nutrition and agricultural authorities. He was very happy to hear from Dr. Aykroyd that as far as actual nutritional research was concerned India was not far behind in comparison with countries outside Western Europe and North America, but he would like to see the results of that research applied in practice and the government and the people must share in this. As regards the consumption of milk he considered that milk was a very important factor in the national Indian diet. On account of the indiscriminate slaughter of cattle to which attention was drawn in the last session of the Council of State, the problem of agriculture had become very difficult and the quality of milk had also gone down. It was difficult to get unadulterated milk these days and he suggested that it would be worth while considering the question of using condensed milk.

Sir Frederick James (Central Legislative Assembly) wished to know how the Government of India were treating the recommendations of the Conference, and enquired from the Honourable Member as to what steps had been taken already. He would also like to endorse the observations made by the Hon. Mr. Sipru in regard to the importance of establishing in this country the kind of National Nutrition Organisation which was described in the seventh resolution of the Conference. They had in India an Advisory Nutritional Council and he wanted to know to whom it advises.

Lt.-Col. E. Cotter (Secretary) stated that the Advisory Nutritional Council advises the Indian Research Fund Association and that its recommendations were forwarded to the Government of India through the Indian Research Fund Association.

Sir Frederick James (Central Legislative Assembly) said he would like to see that body lifted out of its present comparative obscurity and given a status not less than the status of the Central Advisory Board of Health in advising the Government of India. He would also like to suggest the enlargement of the terms of reference of that body and endorsed the remarks of the chairman that the Government of India should have its own nutritional experts on the spot at the centre. Concoor was a long way from the Centre of things and certainly very far away from such provinces as the Punjab and Sind. Finally he would stress the importance of education and publicity in all matters connected with nutrition. It was no use advising the masses about the most perfect diet in the world, if people won't take to it. He hoped that the Advisory Committee would bear that point in mind when publicity work on nutrition was carried on.

Mr. M. C. Doss (Baroda) stated that he was very grateful to the compilers of the report and the recommendations made therein. They were very valuable. It was just possible that individually some of the recommendations might not apply equally to all parts of India but collectively they had a very great weight and he thought that effect should be given to them at a very early date. His Government was considering the question of supplying milk to poor expectant and nursing mothers and school children. He hoped that when the Central Organisation had been established in India the States would not be forgotten.

Major General R. H. Candy (Bombay) said that he could do nothing but throw cold water on what had to be said, and apologised to Dr. Aykroyd in advance. While agreeing with the accuracy, logic and cogency of the facts presented, he felt that it was the quantity of food and not the quality that mattered. At present the quantity was not there because the purchasing power of the people was very low. This had been amply demonstrated in Bombay.

where a rationing scheme was in force. The shortage was due to the inability of the poor people to buy what was available. The problem was neither of a medical nor public health nature but one which concerned the purchasing power of the villager. In Bombay it was very difficult to get good milk under six annas a pound. There was a good deal of skimmed milk imported and that was what they were taking at present. It was impossible to get fresh milk and the price charged was beyond the means of the poorest family. The findings of the conference were to his mind purely academic. What was required was that the Central Government as well as the Provincial Governments should get down to this great problem in India of raising the general standard of living of the people. Our main efforts should be in improving the nutritive value of the food that people take. He would suggest to the members to pass a resolution urging the government to increase the purchasing power of the masses.

Colonel A. H. Hartly (C. P. & Berar) while agreeing with Major General Canda's remarks felt that the problem of nutrition in provinces should not be given to committees but to individuals. He did not object to such a committee being appointed at the centre because that Committee would be more or less in the shape of an advisory body rather than an executive body. During the many years that he had been in India he had come to wonder if there was not a cult amongst the Indians of many classes to subsist on a minimum both of food and of comfort. Whether it was a commendable thing or not he was not prepared to say. It had its virtues, and it would be a very difficult task to change the habits of the people. He did not agree with the Hon'ble Mr. Sapru when he said that the shortage of milk was due partly to indiscriminate slaughter of cattle. In other countries a much larger number of cattle were slaughtered and yet there was no shortage of milk. In India there were enormous quantities of cattle which were not milk producing and were yet allowed to devour fodder.

The Honourable Mr. P. N. Sapru (Council of State) on a point of personal explanation said that he was speaking of war time conditions only and referred the Chairman to the debate in the Council of State where it was urged by the Hon. Syed Hussain Inam that milk producing cattle were slaughtered indiscriminately to the detriment of the agriculturists.

The Chairman said that what Col. Hartly wanted to make clear was that they had been neglecting the feeding of cattle. His feeling was that if they could not feed human beings they could not feed cattle either.

Colonel A. H. Hartly (C. P. & Berar) said that they should reserve fodder for those cattle that produced milk.

The Chairman said that it was purely a matter of feeding and breeding and that in the last 20 years the milk yield in the Punjab had nearly doubled in some districts.

Colonel A. H. Hartly (C. P. & Berar) agreed with the Chairman and said that he hoped that no committee would be appointed in the provinces if the Board decided upon enlarging this work.

Dr. R. L. Tuli (C. P. and Berar) felt that the present problem was one of quantity rather than that of quality. A Grow More Food Campaign had been going on full blast in many provinces and to that should be added a produce more milk campaign. A scheme had been prepared in his province whereby neglected cattle had been collected and fed scientifically with a view to increase the production of milk. As regards the establishment of a nutritional committee in the Central Provinces although recommendations had been made nothing had been done so far. The Government was to find out ways and means of more and also to safeguard people against the grain and also to regulate their produce. Formerly an agriculturist was always in debt. To-day he is well off by only selling 30 per cent of his produce and hoarding up the rest for better

prices. He associated himself with the other members in thanking Dr. Aykroyd for the very valuable contribution that he had made to the debate.

Colonel R. Hay (Punjab) said that his Government had not examined Dr. Aykroyd's memorandum in detail but that they would be very glad to consider any recommendation or proposal put up by the Central Advisory Board of Health. He also expressed his Government's appreciation of the valuable assistance which Dr. Aykroyd had given them in the past and he congratulated him as well as the Board in having placed before them this very valuable memorandum on food.

Colonel J. P. Huban (N. W. F. P.) favoured the formation of a National Nutrition Committee with a view to raise the standard of physical fitness and efficiency in this country.

Lt.-Col. A. N. Chopra (Orissa) felt that although the recommendations were extremely valuable this was not the time to consider them. He agreed with the suggestion of the formation of a central committee whose recommendations when received should be carried out. The main thing required at present was to find out ways and means of increasing the purchasing power of the individual. If that was done the health problem would be automatically solved or at any rate materially relieved.

Dr. Mohamed Farooq (Hyderabad) informed the Board that his Government had set up a food control department and that a nutrition expert had been appointed by the State. Extensive diet surveys had been carried out particularly in institutions such as jails, boarding houses, schools and colleges. They had very valuable data on which to base their recommendations and he recommended that this officer with all his knowledge and information should be represented on the Food Control Department.

Dr. P. Parthasarathy (Mysore) stated that his government had appointed a special officer who was trained by Dr. Aykroyd in nutritional work. A small committee had also been formed. He was in favour of forming a provincial committee so that the members of the various interested departments may come together and understand the problem and make necessary arrangements to give effect to their recommendations for improving nutritional conditions of the people. It had been suggested by some members that the purchasing power of the people should be increased but he doubted whether it was possible to do that.

Dr. H. R. Rishworth (Railway Department) no remarks.

Dr. S. H. Paul (Assam) supported the recommendations.

Rai Bahadur Dr. B. P. Mazoomdar (Bihar) stated that his government had appointed a nutritional expert who was carrying out extensive diet surveys amongst various groups of people. He agreed with the suggestion of the formation of Provincial Nutrition Advisory Committees and felt sure that his government would consider the recommendations of the Central Advisory Board of Health favourably.

Rai Bahadur Dr. A. C. Banerjee (U. P.) agreed that a Central Committee should be formed which should immediately consider how to utilise to the best advantage the existing resources of the country to save the population from starvation.

Rao Bahadur Dr. R. Adiseshan (Madras) explained to the members the steps taken by his Government for the Grow More Food Campaign. If the object of establishing a Provincial Nutrition Committee was to increase the production of rice which was the staple diet of the people he felt sure that his Government would give its approval.

Lt. Col. E. Cotter (Secretary) thanked the Chairman for giving him an opportunity to express some remarks in order to correct some erroneous impressions arising out of the discussion. He agreed with the suggestion that it was necessary to raise the status of the present Nutrition Advisory Committee and to widen its influence so that it could become a more immediate instrument of advice to Government. He would, however, recommend that only experts

in their own particular line should be taken on this committee. Any person with just general vague expressions of opinion would cut no ice with the alert body of rising Indian scientists who were raising the standard of this Committee year by year to a higher level. He added that one of the best contributors was a State's representative from Hyderabad.

The Hot Springs Conference had been criticized by many but he felt that those criticisms could not be applied to the Indian Nutritional Advisory Committee as evidenced by its proceedings of the previous week which had been placed before them. They would see that the problem had been dealt with in a practical and constructive way both in regard to the general situation and the urgent requirements of Bengal.

He did not agree with the suggestion of Col. Harty that provincial committees were no good and that the work should be left to one officer alone in the province. The main trouble they were faced with was to implement the knowledge that they had got and from his own experience of the provinces he felt that without a strong local committee nothing would be achieved. They had trained a highly qualified nutritional officer for the C. P. at great expense and considerable effort. This officer worked in the Province on nutrition for a period of 3 or 4 months. He was then posted on some other duty and nutrition work was forgotten.

The Chairman in summing up the debate pointed out that when nutritional experts indicated the needs of our population it was for the agricultural department to raise production of all kinds so that these needs could be provided for. He wondered how much time legislators and provincial ministers devoted to this very vital problem of production and nutrition as compared with other problems. Did they spend even a week in their legislative councils to consider how production could be increased? This question had to be tackled persistently to attain any result. He was grateful to the European Group who had taken up this question in the last session of the legislature.

Sir Frederick James (Central Legislative Assembly) enquired whether this report would be tabled in the next session to give them an opportunity to raise the question.

The Chairman said that they needed the spur of public support in these matters and he agreed with Major General Candy that if they were going to achieve anything they would have to take violent action. Mr. Sapru and other members had suggested raising of the standard of the general population. The whole matter depended on the price the agriculturist got for his produce and he hoped that his friends Mr. Sapru and Sir Frederick James would consider the question of stabilising the prices of agricultural produce. In his own opinion it was necessary to have some sort of a joint development board which would consider these problems together instead of dealing with them in separate compartments.

The best diet that he had come across of was in a small community in a place called Hunza near Gilgit, where the people were able to walk 60 miles and back in one day. If you require greater efficiency from your workers you have to feed them well, and that is where the nutrition department had done very little work. The Honourable Mr. Sapru had pointed out that we were mainly a vegetarian country and the consumption of milk was very poor as compared with other countries which had a varied diet. Some parts of India did not get three ounces of milk per capita, while in England with its varied diet he was told that the consumption was about 56 ounces. He was glad to hear this new expression—starry-eyed—He felt that it was only those people who could walk in the light of the stars that could achieve something. Unless they had high ideals they could not work up to them, and the greatest ideal they must have was to feed the population.

As for the question of the different diets in the various provinces he felt that it was possible to provide a diet which would be palatable in all areas. For instance most of the millets could be melted in such a way that the rice eating

people could easily digest them. That was a problem which had to be tackled. One point which he felt he must emphasise was "Pay greater attention to these economic problems and less to politics, because the foundation of politics are men and if you make men, politics will follow". He did not agree that Indians rejoiced in living on a minimum diet. That was not so. They reduced the quantity of their food because they had to spare something for other things that they needed and he felt that increasing production in all directions would be the only remedy.

AGENDA ITEM NO. 964 TO CONSIDER A
CO-OPERATION BETWEEN CIVIL AND
IN RESPECT OF THE SANITATION OF
TO CONSTRUCTIONS FOR DEFENCE SERVICES

(b) TO CONSIDER A MEMORANDUM ON MEASURES FOR THE PRE-
VENTION OF DISEASES IN AREAS SURROUNDING AERODROMES.

Rai Bahadur Dr. A. C. Banerjee (U. P.) explained some of the difficulties which he had come across in trying to establish liaison between the civil and military authorities. He stated that a large number of big labour camps had been established for military projects in rural areas near cantonments and near certain urban areas in his province. The sanitation of these camps especially those located in rural areas was poor. The civil department had very little organisation for the sanitation of such vast rural areas and close liaison between the civil and military authorities was needed to deal with the conditions under which these labour forces work. At first when the provincial Government asked for information it was told that the matter was secret and that nothing could be divulged. He failed to understand how the employment of a labour force of 10 thousand could be kept a secret. This state of affairs went on for some months until an epidemic of cholera broke out. It was only then that help was asked from the civil departments which was gladly given. While matters had undoubtedly improved there were still many things which required further improvement. There were occasions when he had referred a point to the A.D.M.S. of the area only to be told to refer it to Command. On reference to the command he was asked to write to G.H.Q. and on reference to G.H.Q. he was asked to refer to the central ordnance command. By the time he could get any answer the epidemic situation got complicated and the civil authorities had to butt in and to take measures on their own responsibility and then of course, the question of who should be responsible for payment for the service rendered came up. He appreciated the difficulties of the military authorities in works of this kind which had to be pushed through quickly. The work was entrusted to contractors who as every one knew attached very little importance to the sanitation of labour camps under their charge or to the health and welfare of the labour force which they employed. The inevitable result of an epidemic was that the labourers ran away and they had to be recruited again. He was happy to say that the sanitation of camps entrusted to the civil authorities was looked after satisfactorily. As regards sanitation round new aerodromes built in the province some by the R.A.F. and some by the United States forces they had encountered similar difficulties. He could not mention how many aerodromes had been established in his province. All that he wanted to bring forward was the question of necessary supplies of Anti-malarial drugs required to control mosquito breeding round these aerodromes to prevent infection of the military staff working therein. He had made indents as early as July but unfortunately he had not received any supply so far. He did not know where the delay had occurred. He would like to impress on members that the civil authorities were only too anxious to give all the help and co-operation to the military authorities provided timely notice was given and provided they were told about their jurisdiction and their responsibility. He would also point out that it was not possible for the civil machinery to work at the same speed as the military were capable of but everything possible that could be done was done by his department. They needed however, to be told whom to approach, where to approach, and who would be responsible for the necessary finance.

Dr. H. B. Bishworth (Railway Department) associated himself with all the remarks that had been made by Dr. Banerjee. He said that the railways were interested in this question of sanitation in defence camps established in areas where there were large railway settlements far from or not in the vicinity of local self-governing boards or municipalities. He did not agree with the policy of making contractors responsible for the sanitation of these camps. Contractors simply increased the contract rate and give very little useful return in the shape of efficient sanitation. If the Defence Department could not do this work it should be given to the civil authorities stating exactly what was wanted and he felt sure that the civil authorities would do this work more efficiently than any contractor. Then again some of the sanitation measures were of a semi-permanent nature and if the contractor was to provide for these they remained his property. He would suggest that the benefits of these sanitary measures should be secured for the people living in those areas and not to the contractor and he requested that this point of view should be brought forward when considering any post-war planning scheme. He would like to stress certain points, (1) The undesirability of leaving responsibility for sanitation to contractors, (2) the question of full and early notice, (3) the establishment of liaison committees, (4) the question of cost which should be debated to the Defence Department and lastly (5) the question of the people living in these areas benefiting from any permanent or semi-permanent sanitary measures enforced in that area.

Lt.-Col. H. S. Milne (War Department) drew the attention of the Board to a letter which had been issued by the Engineer in Chief on the 8th December 1941 in which the policy in this matter was clearly stated. He promised to see that the letter would be reissued with fuller instructions so that no further difficulty should arise in future. As regards the channels of approach he would provide a list of the military authorities who should be approached in these areas.

Wing Commander F. Crawford (War Department) stated that he was sympathetic to all that had been said by Dr. Banerjee and described some of the difficulties which he himself had experienced. The question of finance which was generally fixed at Rs. 6,000 for each area per annum was one difficulty. The institution of efficient sanitary and medical arrangements for villages round about an aerodrome was by no means a simple matter. The work took time. On the question of obtaining stores he faced great difficulties largely on account of the difficulty in getting suitable containers and the fact that proposals had to pass through several departments before they could be settled. As regards the American aerodromes he was not in a position to state anything as he did not know what arrangements would be made by the Americans for liaison with the local civil authorities. While they were spending Rs. 6,000 for sanitation round each of the R A F aerodromes per year the Americans were spending the same sum per month. He thought it would be better if grants were made to the R A F in the form of a block grant.

Lt.-Col. A. N. Chopra (Orissa) stated that he had not experienced any difficulties in his province. He, however, felt that Rs. 6,000 was not sufficient for the efficient performance of the work. The cost of living and stores required had gone up considerably and it was almost impossible to do anything satisfactorily with the grant placed at their disposal.

Khan Bahadur Dr. A. H. Butt (Punjab) described his experiences in the early stages of the scheme and particularly in connection with the planning of sanitary measures round about aerodromes. He was, however, happy to inform the members that things had improved now and that there was very close liaison between his officers and the Air Force people and the work was running smoothly. His government would be only too glad to consider any recommendations made by this Board on these questions.

Rao Bahadur Dr. R. Adishesan (Madras) stated he had also encountered similar difficulties in his province. The contractor never looked after the sanitation of the camp. This work was now being done by the Public Health Department. A monthly statement was sent regularly to the Garrison Engineer

who deducted the expenditure from the army contractors and passed it on to the Public Health Department.

The Honourable Mr. P. N. Saprú (Council of State) suggested that the expression 'labour camp' should be substituted for 'coolie camp' because the word 'coolie' had got into bad odour.

Third Day's Proceedings.

AGENDA ITEM NO. 11 TO CONSIDER A MEMORANDUM ON THE APPOINTMENT OF A DIRECTOR OF NURSING SERVICES IN THE MEDICAL DEPARTMENT OF EACH PROVINCE OR STATE.

Major General J. B. Hance (Government of India) stated that in order to assess the reasons which led to the rather circumscribed suggestion on the Agenda of appointing a superintendent of Nursing Services on the staff of registered medical officers of Provinces and States, it was necessary for them to have some conception of the nursing situation in India as it was at present. He would like to emphasise certain particular aspects of the problem. The ideal basis was to have one nurse for four beds in a hospital. The ratio of nurses to population in the United Kingdom was 1 to 371, the ratio in Madras, Bombay, Bengal, U. P., the Punjab, and Bihar was 1 nurse for 27,000 of the population, and taking India as a whole the ratio was 1 nurse for 67,000. It could be seen, therefore, that there was a very great shortage of nurses both for the armed forces and for the civilian needs of the country. He had been informed by General Paton, Surgeon General with the Government of Bengal that the Medical College Hospital in Calcutta alone, had a shortage of 70 nurses. Present difficulties were further emphasised by the inability to staff with nurses emergency hospitals opened in Bengal for victims of the present famine. Probationers were being given an intensive training for three months in Bengal to look after these famine patients, but could not thereafter give that care and skill in nursing which was so essential for these patients. It would be apparent to the members that both the quantity and the quality of nursing judged by even the most conservative standards were very scanty. He had been often told that the profession did not appeal to Indian women. He, however, felt quite sure that this was an inaccurate statement. The late Mr. Doodhar had no trouble in obtaining the numbers required from Indian ladies of the highest status, and he felt that the members present would support him in his statement when he said that there was no doubt either of the devotion of Indian ladies or of their capabilities for training. The chief cause of shortage was to be found far more in the conditions of work and training existing at present in the profession. What was lacking was adequate off duty leisure, adequate accommodation, adequate feeding and adequate facilities in the case of probationary nurses for study of their profession. These conditions did not exist except in some hospitals in Presidency towns. Accommodation for nurses and probationers under training was of the menial type. Young girls who were strangers to each other were herded together four or five or six in one room with beds touching each other and in these rooms they were expected to spend their off duty hours and at the same time to study their profession. Frequently they were expected to do their own cooking. He thought that unless these conditions were remedied no progress could be expected.

Madras had made some efforts in providing Public Health nurses but he was sorry to mention that there was nothing in this country approaching the public health nurse as known in England and America. As for male nurses in no country in the world was there a greater opening for such than in India. The Army authorities were training a large number but this, of course, was just a very small beginning. It had been suggested that this Board should recommend the formation of a Provincial or State Nursing Service in the Provinces and would provide something like a future for its members and a collective voice for the nursing profession. He hoped that it would be received and considered favourably.

Major General R. H. Candy (Bombay) while agreeing with the remarks of the Director General, Indian Medical Service on the unsatisfactory conditions of the nursing services as a whole in India said that the remedy suggested was not so easy as it looked. Speaking for Bombay he pointed out that trained nurses were working throughout the Presidency. Their main difficulty was in the fact that they could not get any building accommodation. His Government had accepted a number of schemes for the improvement of the nursing profession particularly for more nurses under training and so on but they were faced with the difficulty of finding any sort of quarters for them. The standard of providing one nurse for every four beds in a hospital had been adopted by the Bombay Nursing Council. Out of these nurses 25 per cent must be fully trained and registerable with the Bombay Nursing Council. Difficulties existed in the formation of a Provincial Nursing Service, e.g., there was the question of language, four distinct languages were spoken in the Bombay Presidency. Another difficulty there was that nurses were largely controlled by the Nursing Council. Now it had been suggested that a Superintendent of Nursing should be appointed who would do something towards laying down the curriculum. But this work was at present done by the Nursing Council and he felt sure that they would not like to be deprived of this privilege. Major General J. B. Hance had spoken about the quality or the type of nurses who should take up training. His impression was that girls who came from rural areas did not possess sufficient education to take on this work. He referred to the admirable work done in this connection by the late Mr. Deodhar.

The menials employed in hospitals were always underpaid and this along with the whole question of the employment of menials was a further complication. Although he was sympathetic with the motion he was sceptical as to whether it was going to do as much good as they really wanted. He would like this Board nominate a small committee who would lay down some sort of standards of the number of persons required for every department in a hospital including nurses. He would suggest the introduction of technicians and the abolition of the existing order of menials who were usually the scum of the town, lazy pilferers or professional burglars. Until these menials were done away with the right type of nursing would never be obtained. He did not think that the appointment of an Inspectress at the top would carry them a great deal further in solving this problem.

Colonel A. H. Hart (C. P. & Berar) said that they were woefully lacking in nurses in his province and that living conditions were dreadful. Their working conditions were no better and unless these also were improved they could not hope to encourage respectable girls to come up for training. He fully agreed with Major General R. H. Candy's remarks but he was very anxious to do something in his province where the nursing question was very acute. He welcomed the suggestion for the appointment of a superintendent of nursing and thought that such a person might supply the special kind of drive that men could not supply. She would also be able to supervise the nurses and he thought that from this small beginning, better results might be obtained in the future.

Dr. R. L. Tull (C. P. & Berar) while agreeing with all that had been said previously gave a brief description of a scheme "Village Sister" which had been introduced by his Government to improve conditions in rural areas. Candidates for this work were selected from villages and taken to district hospitals where they were trained for one year in elementary nursing and infant welfare work. After that they were employed in rural areas. They were paid Rs 15 monthly for whole-time and Rs 10 monthly for part-time work in villages. Although they were not allowed to render first aid to the people suffering. His Government this Board whole-heartedly.

Dr. N. V. Pandit (Baroda) said that they had no difficulty in recruiting midwives and nurses in his State. They always sought the help of women's institutions in order to induce women to take up this work. He suggested instructions to the probationers should be given in the vernacular of the pro-

and that they should not be made to do hard work of eight to twelve hours a day from the very beginning. Side by side with this training girls should also be given a training in English as that would increase their efficiency and perhaps also their attendance. He had no objection to the appointment of a superintendent of nursing but he felt sure that unless the subject was approached through women's institutions they would not be able to attract the right type of girl.

Dr. L. D. Sarronwalla (Jodhpur) stated that on account of prevalent social customs they had not been able to find local girls who were willing to take up this profession. They were, therefore, compelled to start training classes for male nurses on the lines of the Punjab. Recently his Government had put up a scheme for training nurses in their own local vernacular and with just that amount of English education which would enable them to read prescriptions or general instructions.

Colonel R. Hay (Punjab) stated that the nursing problem in the Punjab was a nightmare both to patients and administrators. Discussion on this question was long over due and he felt that his Government would give their fullest consideration to any recommendation made by this Board. Besides the nurses required for indoor patients they must have nurses for outdoor patients. In the Punjab the outdoor patients numbered about one lakh per day and taking one nurse for every hundred patients they required a thousand nurses for this work alone. Then again the question of nursing in the home had to be considered. On account of the prevailing social customs it was very difficult for them to get girls to take up this profession. At the present moment although girls were coming forward for the medical course they were not willing to take up the nursing profession.

Colonel J. P. Hubar (North-West Frontier Province) stated that his experience was exactly the same as had been mentioned by Colonel R. Hay and stressed the necessity of providing better accommodation, and better protection and supervision over the girls who were under training. He also suggested that their scales of pay may be so adjusted as to attract the right type of persons.

Lieut.-Colonel A. N. Chopra (Orissa) strongly supported the suggestion for the appointment of a superintendent of nursing on a staff as he felt that this work could only be done by women and not by men.

Dr. Mohamed Farooq (Hyderabad) supported the resolution.

Dr. P. Parthasarathy (Mysore) stated that his Government had appointed a committee to go into the whole question of nursing. The points of reference were uniformity of standards for training of nurses, the question of employment of married nurses, revision of the scale of pay and a few other points. As regards uniformity of the standard of training he stated that they had six training institutions in the State. Unfortunately their standard was much lower than the standard adopted by other western countries. The hospitals in his State were finding it difficult to cope with the work and as far as public health nursing was concerned the position was still more acute and he would request for some guidance on these points. The suggestion of the Board for the appointment of a superintendent of nursing would be put before his Government for consideration.

Dr. H. R. Rishworth (Railway Department) suggested that a course of home nursing be made compulsory in girls' schools in the vernacular so as to bring to the notice of Indian girls the advantages of nursing.

Dr. S. K. Paul (Assam) supported the resolution.

Raj Bahadur Dr. B. P. Mazoomdar (Bihar) supported the proposal as there was a great dearth of qualified nurses for work both in towns and in rural areas.

Raj Bahadur Dr. A. C. Banerjee (U. P.) stated that his Government had opened six new nursing centres and there were at present 200 nurses undergoing training. Government had also agreed to provide funds for buildings and to appoint a Director or Superintendent of Nursing.

Lieut.-Colonel J. E. Gray (Sind) said that they were in favour of the formation of a provincial nursing service and for the appointment of a superintendent of nursing. Their difficulty was finance. They were very short of nurses and it had been suggested to them that if the provincial Government could take over the nursing question there was every chance of their getting more probationers for this course which should be given to them in the vernacular. He supported the proposal.

Dr. B. Mookherjee (Bengal) supported Major General R. H. Candy's suggestion for the appointment of a committee who would lay down a standard for training. Unless better emoluments were given to these nurses it would be very difficult to draw upon the right type of persons for this work.

Rao Bahadur Dr. R. Adiseshan (Madras) drew the attention of the members to two points, mentioned in a note written on the subject by the Surgeon General to the Government of Madras General Stott. The first was on the question of the appointment of a Director of Nursing now changed into Superintendent, and the second was on the question of the tenure of this appointment. There was no doubt about the shortage of nurses in the Medical Department but in the Public Health Department were even worse affected. He supported the resolution before the Board.

Sir Frederick James (Central Legislative Assembly) while agreeing with the main outlines of the resolution suggested one or two modifications. Firstly he would like to see as a preamble the statement of the Director General circulated to all Provincial Governments and States and secondly he would like to draw attention to the necessity of creating public opinion on the matter of recruitment of nurses. By public opinion, he meant that of the whole medical profession and the Ministers and Advisers to Government so as to convince them of the necessity of an efficient and well paid nursing service. He recalled one unfortunate action of the late ministry of Madras in reducing the pay and emoluments of the nursing services in that province. He had led a deputation to the Prime Minister on this subject but unfortunately that minister was also the Finance Minister and said he saw no reason whatsoever for a highly paid female nursing service, as he felt that what the patients required were orderlies on Rs 12 a month.

At the fourth meeting of this Board it had been recommended that the Central Government should consider the constitution of a Central Nursing Council in order to co-ordinate the work of the Provincial Governments. Unfortunately this recommendation was not proceeded with without consulting the Provincial Governments. It was required of the Board whether they were not asking the Provincial Governments to do far less urgent things at present and he instanced the time spent by the Central Legislature on the Delhi University Bill.

The Chairman said that he did not agree that this was time wasted.

Sir Frederick James (Central Legislative Assembly) continuing said that it was necessary to observe certain priorities even in war time because if the impulse to do something about this work during war time was lost they would have to wait for a number of years after the war before anything could be done and he hoped that Government would seriously take up this matter. He felt that perhaps the political parties of the future may have their own particular programmes to get through and this might still further endanger the existing position and it was all the more necessary for some central body to give direction and assist in maintaining the proper standards of nursing. He also felt that there was a necessity for somebody to deal, not only with interprovincial reciprocity of registration, but also reciprocal registration with the authorities in countries and States outside British India. He was very happy to mention that during his last visit to the Middle East he had found Indian Nursing Sisters doing magnificent work, and he hoped that when they would come back to India after their wide experience, they would be able to get much better treatment than they did in the past.

The Honourable Mr. P. N. Sippy (Council of State) stated that he agreed with the views of Major General B. H. Candy. The prejudice against nursing was dying out in India and Indian women were taking to it in larger numbers. The only draw back was that parents did not like their girls to go out to distant places on account of conditions as they existed to-day. He was, therefore, an enthusiast in over the proposal for the formation of provincial nursing services. What he would recommend was to give the nurses greater security of tenure, greater leisure hours than what they were enjoying at present, and greater supervision over their activities. As regards the appointment of a Superintendent of Nursing Service on the staff of Inspector General of Civil Hospitals or the Surgeon General of a province, he had not the slightest objection, but, he would suggest to the Board to extend an invitation to some of the educated and influential women in each province for their co-operation in this work. Women who were interested in social work, women who were connected with the running of philanthropic or charitable organisations, would certainly have great influence with their sisters and would be better able to break through such present prejudice as existed in Indian minds against the nursing profession. They required the wholehearted co-operation of the medical authorities also. One other point which he would like to mention was on the question of the employment of nurses by private individuals to attend to cases of illness in their homes. The difficulties of the middle class people were very great. It was not possible for them to pay Rs. 15 or Rs. 20 per day for a nurse. What they would like in India was something cheaper within the means of a large number of people. He would also suggest that these nurses be trained in Indian languages, and that they be provided with adequate accommodation and friendly supervision. The Board should also take up the question of training male nurses particularly to suit the needs of certain provinces.

The Chairman confessed that they had been rather slow in conserving the resources of the land, and because the land was poor, the services were also necessarily poor. Sir Frederick James had spoken of priorities but he hoped he would remember the fact that unless resources both in land and agriculture and industry were developed, they would never be able to raise the services to the level of western countries. The income per head in India was only Rs. 5 compared with an income of Rs. 255 per head in England. The difference between these two incomes revealed the distance between the services which we could give to the people in India. He expressed a hope that legislators in India would concentrate on production and improve the economic conditions of the country, as then only they would be able to achieve the aim in view. The Director General had pointed out that there was a great shortage of nurses but he would also point out that there was a great shortage of doctors as well, they being in the proportion of one to 10,000 of the population in this country. He did not think it necessary to appoint another sub-committee, as the existing committee would survey the whole field and indicate the needs of the population. A programme for education had been prepared, and he hoped a similar programme for health to meet the needs of the people would also be forthcoming. He was in favour of the appointment of a superintendent of nursing services who could devote here whole attention to this particular problem. The idea of training Village Sisters started in the Central Provinces was a good one and as their numbers multiplied he hoped they would be of assistance to the rural population. He agreed with the suggestion that all these discussions should be implemented as soon as possible, otherwise they would be futile.

The Honourable Mr. P. N. Sippy enquired about the amendment suggested by Sir Frederick James.

The Chairman informed the member that it would be included in the Resolution.

AGENDA ITEM NO. 10—TO CONSIDER A SUMMARY OF THE REPLIES RECEIVED FROM PROVINCIAL AND STATE GOVERNMENTS SHOWING THE ACTION TAKEN BY THEM ON THE VARIOUS RECOMMENDATIONS MADE AT THE PREVIOUS FOUR MEETINGS OF THE CENTRAL ADVISORY BOARD OF HEALTH

Dr. P. Parthasarathy (Mysore) informed the members that they had sent information about the work that they had carried out with reference to the Resolutions passed by the Central Advisory Board of Health. They had not been able to take action on all the recommendations of the Board not because they did not want to do so but it was on account of the existing conditions. He would like the Board to give some indication as to whether the subjects discussed at its meetings should be classified only under Public Health or under both Public Health and Medical. The maternity and child welfare work had been carried out in his State by the Red Cross Society. It was not possible for a quasi-official organisation with a little money to do justice to this work and he would be grateful for the Board's advice.

The Honourable Mr P. N. Sapru (Council of State) drew the attention of the Board to a resolution of the National Council of Women in India passed at the 7th Biennial Conference of that body in 1940 which recommended to the Government of India the appointment of an All-India Nursing Council for the purpose of co-ordinating the activities of the provincial nursing registration councils, and, the establishment of a uniformly high standard of the nursing in the country. He thought that they had passed a similar resolution at their Calcutta Session also, and he would like to know the views of the Provincial Governments on this question.

Lieut.-Colonel E. Cotter (Secretary) said that this resolution was forwarded to the Government of India who had pointed out that legislation for setting up such a Central Nursing Council could only be proceeded with in consultation with the Provincial Governments.

Sir Frederic James (Central Legislative Assembly) enquired whether the subject was still being examined.

The Chairman suggested that perhaps they might have a non-statutory body.

Sir Frederick James (Central Legislative Assembly) stated that such a body would have no authority. It would only be advisory. What was required was some statutory body on the lines of the All-India Medical Council who could perform the functions suggested in the resolution, namely the co-ordination of the activities of the Provincial Nursing Council, and advise on all problems connected with nursing and the establishment of an uniform system of education and so on. He would like to ensure, that these proposals were at least sent round the various provinces and states, and if they did not care for them, well, that was the end of the matter.

The Chairman assured him that he would see that it was done.

The Honourable Dr. Hemandas R. Wadhvani (Sind) stated that it had been mentioned previously that it was not possible for Governments to make any appreciable progress in carrying out the larger schemes recommended by the Board. He thought that it was due to the following three reasons:—

Firstly as Sir Frederick James had already remarked that heads of the Governments did not pay much attention to the work of the Government Medical and Public Health Departments. He was a medical man and he could say it openly that these departments were always considered as minor departments. When he was a Minister of Irrigation and Public Health in 1937, three-fourths of his work was done by his Secretary. He considered Public Health and Medical Departments as major departments but unfortunately in other provinces where non-medical men were Ministers they thought otherwise. At the present moment the suggestions coming from the Centre were dealt with by the Secretaries even without the knowledge of the Ministers. Thus between the head

Medical Department and the Ministers there was no medical man. In the P. W. D. the Chief Engineer was generally the Secretary to the Government in that department. He would therefore suggest that in every province the head of the Medical and Public Health Department should be a Secretary to the Government. If that was not agreed to, he still was of the opinion that the Assistant Secretary or the Superintendent of that Secretariat, should be a medical man. Without the help of a medical man in the Secretariat it was impossible to carry out any advisory schemes which might be put forward, as non-medical men did not pay due attention to such proposals.

On a previous occasion he had suggested the creation of Local Health Boards with persons who were technically qualified to understand the necessity for carrying out the health programme. His friend the Honourable Mr. P. N. Saprú had commented upon that by saying that such a suggestion would go against the principle of local self-government. But that was not his intention. The only point he wanted to emphasise was that these local bodies should include technical people who could take an intelligent interest in nation-building schemes. They might be medical men or persons with some health qualifications. This was not contrary to the principles of local self-government as these technical bodies would concentrate only on health matters. The last point which he would like to dwell upon was the question of reciprocity between the different provinces and he gave the following instances —

Every year the Sind Government had been sending out 17 students to the different provinces for medical training as there was no Medical College in the Province. They had to pay over a lakh of Rupees for admission fees alone. This should not be the case. There should be reciprocity and every Government should give proper facilities. Another instance which he quoted was a telegram from Madras saying that they would charge 50 per cent more for quinine. This he thought was directed against his province on account of their food policy. Sind was a deficit province and they had to pay a huge loan to the Government of India. They were not profiteering for the sake of any personal gain and he failed to understand why this excess should have been charged by the Madras Government. There should be a regular reciprocity between the different provinces and he would request this Board to consider these points very carefully.

The Chairman while agreeing with the remarks of the previous speaker suggested that the Centre ought to help and restore ordinary normal conditions. He thought "federated India can do all that you want."

Lt.-Colonel A. N. Chopra (Orissa) agreed with the Honourable Dr. Hemadas R. Wadhvani's suggestion to make the Inspector General of Civil Hospitals of a province a Secretary to the Government just as the Chief Engineer was the Secretary to the Government in that department.

The Chairman suggested that they should close the discussion as it was not on the agenda.

The consideration of the Resolutions was then taken up.

The Honourable Mr. P. N. Saprú (Council of State) requested that the report of the Food Adulteration Committee as discussed under Item No. 2 on the Agenda should be circulated to the press.

This was agreed to.

Items No. 2, 4 and 5 were accepted without comments.

Sir Frederick James (Central Legislative Assembly) suggested that the report of the Joint Committee on Blindness be circulated to both the Advisory Boards and that the Government of India be asked to take action on any recommendations contained therein without waiting for the next meeting of these bodies.

This was agreed to.

Resolutions on items No. 6 and 7 were accepted without comments.

In Resolution No. 8, the word "suitable" was substituted for the word "similar."

The draft Resolution on Item No. 11 on the Agenda was then considered.
Major General R. H. Candy (Bombay) did not agree to the establishment of a Provincial Nursing Service and objected to a separate fund for (1) of this item.

The Chairman agreed to note down his dissent.

The Honourable Mr. P. N. Saprú (Council of State) felt that the system required further thought and that he was not able to vote in favour of the creation of a post of Superintendent of Nursing Services.

The Honourable Khan Bahadur Maulvi Jalaluddin Ahmed (Bengal) did not agree with the creation of a post of Superintendent of Nursing Services.

The Honourable Mr. P. N. Saprú (Council of State) withdrew his dissent from the suggestion for the creation of a Superintendent of Nursing Services.

The Resolution as amended was then read and carried.

The Resolution on Item No. 12 was then considered.

Major General R. H. Candy (Bombay) dissented.

Lieut. Colonel E. Cotter (Secretary) said that before the meeting terminated it was the usual custom to decide the venue of the next meeting of the Board. Circumstances had compelled them to hold the meeting in Delhi instead of at Bangalore as had been decided originally. They had received an invitation from Baroda but after discussion with Mr. Motilal C. Desai it was decided to leave the venue open.

In view of the difficulties of transport facilities during the coming year the Hon'ble Mr. P. N. Saprú suggested that for the period of the war they might meet in Delhi itself.

The Chairman in winding up the proceedings of the meeting thanked the members on behalf of himself and the Government of India, particularly those provinces and States who had sent their representatives. He would have been very happy to see advisers and ministers to Government and to have had the benefit of their advices for the formulation of future policies, as he felt that the work that they were doing was for the good of the people in India.

The Honourable Dr. Hemandas R. Wadhvani (Sind) proposed a vote of thanks to the Chair.

The Honourable Khan Bahadur Maulvi Jalaluddin Ahmed (Bengal) seconded the proposal.

The Honourable Mr. P. N. Saprú (Council of State) in supporting the vote thanked Lieut. Colonel E. Cotter, Rao Bahadur Dr. K. C. K. E. Raja, Major General J. B. Hance and Mr. S. H. Y. Oulsham.

The meeting then terminated.

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This was agreed to.

Resolutions on Items No. 6 and 7 were accepted without comments. In Resolution No. 8, the word "suitable" was substituted for the word "similar."

(10) The licensing of hawkers and the conferring of legal powers on local health staff for establishing the identity of hawkers in cases of doubt are essential for an efficient administration of the food adulteration law.

(11) Instead of legislating only for the control of food adulteration, it is desirable to provide an Act on a wider basis so as to bring together all the existing enactments dealing with food which are at present scattered in various Acts, and this opportunity should be utilised for modernising existing legislation.

(12) Provincial Governments should urge their Legislatures to take advantage of the provisions of Section 104 of the Government of India Act, 1935, and request that the Central Legislature should pass an Act for the control of food production, distribution and sale.

(13) It is essential to supply certain food measures by administrative action designed to increase the production of important foodstuffs so as to ensure that they will be satisfactory in quality and quantity as well as to reduce the cost of their distribution to the public. The promotion of co-operative effort suggested as a valuable step towards the realisation of these objects and the Governments of Provinces and States should pay particular attention to an expansion of organisations based on the co-operative principle.

(14) The Board expresses the wish that, in order to improve the food supply of the people Governments will take early steps to give effect to these recommendations. It considers that recommendations (1) to (10) can be put into force now without waiting for the comprehensive legislation and administrative measures contemplated in Recommendations (11) to (13).

(15) The Board recognises that, in order to make a definite advance in the control of food adulteration and in improving the food supply of the community, both in respect of quality and quantity, it is essential to ensure that the closest possible co-operation is secured between Governments, local authorities, those who are engaged in the production and distribution of food and the general consuming public. The enforcement of legal measures against infringements of the law are undoubtedly essential for improvement but, without the intelligent co-operation of all those who are interested in the problem, no success will be achieved in a reasonable length of time. The Board therefore desires that wide publicity should be given to the recommendations of the Food Adulteration Committee and that special stress should be laid on the necessity for securing the goodwill and collaboration of the food trade in the campaign for the improvement of the community's food supply.

(16) It is also desirable that the various Food Trades should organise themselves into a number of representative bodies to facilitate discussions between consumers and producers and to spread the necessary information amongst the less well-informed members of such bodies.

Item No. 4.

A MEMORANDUM ON "ANAEMIA IN PREGNANCY IN INDIA INCLUDING HAEMATOLOGICAL TECHNIQUE" FORWARDED BY THE INDIAN RESEARCH FUND ASSOCIATION.

The Central Advisory Board of Health desires to place on record its appreciation of the great service that has been rendered by the Indian Research Fund Association through the investigations into the problem of anaemia in pregnancy conducted under its auspices and through the publication of the invaluable memorandum on the subject by Drs. L. E. Napier, M. I. Neal Edwards and C. R. Das Gupta.

The memorandum, which has now been made available to Governments of Provinces and States and to their health advisers, should be of the greatest value to these authorities in the organisation of preventive and curative measures against this important cause of maternal morbidity and mortality. The Board therefore recommends that earnest consideration should be given by all interested in the subject in India to this "Memorandum on Anaemia in Pregnancy in India."

Item No. 5

A MEMORANDUM ON POSTWAR PLANNING.

The Central Advisory Board of Health is of the opinion that the improvement of health conditions is a matter of vital concern to the country and

plans for a determined effort to raise the standard of health and to provide adequate preventive and curative health services for the people should be placed in the forefront of the postwar development programme.

Further the Board considers that the programme should be based on a comprehensive survey of all aspects of the health problem. It welcomes the appointment of the Health Survey and Development Committee and would stress the importance of completion of the Committee's work at the earliest possible date.

Item No. 6

- (a) A LETTER DATED 28TH DECEMBER 1942, FROM THE SECRETARY, CENTRAL ADVISORY BOARD OF EDUCATION, CONTAINING A RECOMMENDATION FROM THAT BOARD THAT THE CENTRAL ADVISORY BOARD OF EDUCATION AND HEALTH SHOULD JOINTLY CONSIDER THE PROBLEM OF THE PREVENTION OF BLINDNESS IN THIS COUNTRY AT AN EARLY DATE.
- (b) A PRELIMINARY REPORT, DATED 7TH APRIL 1943 BY LT-COL SIR CLUTHA MACKENZIE ON "BLINDNESS IN INDIA" WITH A MEMORANDUM BY THE DIRECTOR-GENERAL, I.M.S.

The Central Advisory Board of Health notes the wish of the Central Advisory Board of Education that a Joint Committee of both Boards should consider the problem of the prevention of blindness. It also notes with appreciation the valuable interim report on Blindness in India by Lieut-Colonel Sir Clutha Mackenzie and requests the Chairman to appoint a Joint Committee of the Central Advisory Boards of Health and Education to examine the subject with special reference to the causes and prevention of blindness in India and to Sir Clutha Mackenzie's recommendations and their practicability. The Joint Committee should report to the two parent Boards.

Item No. 7

A REPORT ON THE WORKING OF THE SCHEME OF THE BIHAR GOVERNMENT FOR THE COMPULSORY INOCULATION OF PILGRIMS ATTENDING THE SITAMARHI FAIRS IN THE YEARS 1942 AND 1943

The Central Advisory Board of Health congratulates the Government of Bihar on the successful experiment that has been carried out at Sitamarhi for enforcing a scheme of indirect compulsory inoculation of pilgrims attending the festivals at that place in 1942 and 1943. The large percentage of pilgrims that were inoculated on both occasions and the considerable measure of co-operation from the public which developed in 1943 as a result of intensive education of the people and of the tactful handling of those who proved obstructive in 1942 are proof of the willingness of the general public to submit to measures intended for their own benefit if they are approached in the proper way. The Sitamarhi Report is commended to Provincial and State Governments for consideration with a view to similar action in respect of selected festival centres in their areas as recommended by the Central Advisory Board at its third meeting in July 1940.

Item No. 8

A REPORT ON THE PREVENTIVE MEASURES TAKEN IN BARODA STATE AGAINST GUINEA-WORM INFECTION

The Central Advisory Board of Health commends to the Governments of Provinces and States the Report on the successful preventive measures taken in Baroda State against guinea-worm infection and expresses the hope that action will be taken on suitable lines by other Governments in whose territories the disease constitutes a public health problem.

Item Nos. 9(a) & 9(b)

9(a) — A MEMORANDUM ON THE CO-ORDINATION OF CIVIL AND MILITARY AUTHORITIES IN THE PREVENTION OF LABOUR CAMPS FOR DEFENCE SERVICES.

9(b) — MEMORANDUM ON MEASURES FOR THE PREVENTION OF DISEASES IN AREAS SURROUNDING AERODROMES

The Central Advisory Board of Health considers that when labour camps are started by the War Department it is essential that in the interest of the health and sanitation of such camps and of inhabited areas in proximity to them, there should be close collaboration between the local civil and military authorities both for the planning and for the execution of all the necessary health measures. In order that such measures may be formulated in detail sufficiently in advance to permit of their being brought into operation, it is desirable that as long notice as possible of the intended works should be given by the War Department to Provincial Governments.

2. The Board notes the difficulties pointed out by Provincial Directors of Public Health in the working of the existing arrangements with particular reference to the establishment of liaison between the civil and military health authorities, the apportionment of cost and the question of supplies. It recommends that the Education, Health and Lands Department and War Department of the Government of India should take immediate steps to have these difficulties removed.

3. The Board recommends that, when the present emergency is over, the rural health organisations in areas surrounding aerodromes should not be discontinued by the Governments concerned on the ground that with the stoppage of grants from the Central Government, no money will be available for their maintenance. The aim should be to incorporate these rural organisations in the frame-work of the general health scheme which Governments will undoubtedly prepare as a part of the post-war planning.

4. It is essential to incorporate the doctrine of self-help in these schemes, the villagers being encouraged to participate by contributions in money, in kind or in labour, since such participation in addition to being valuable measures of health education will help to lighten the cost of the schemes.

Item No. 10

A SUMMARY OF THE REPLIES RECEIVED FROM PROVINCIAL AND STATE GOVERNMENTS SHOWING THE ACTION TAKEN BY THEM ON THE VARIOUS RECOMMENDATIONS MADE AT THE PREVIOUS FOUR MEETINGS OF THE CENTRAL ADVISORY BOARD OF HEALTH

The Central Advisory Board of Health notes that in many cases Governments have not found it possible to give effect to its recommendations. The reports on special health problems prepared by committees appointed by the Board and the different memoranda on various subjects discussed at the previous four meetings afford useful suggestions for planning health policy in many directions and the Board wishes to emphasise the necessity for utilising the information thus placed at the disposal of Governments in their schemes for post-war health development.

Item No. 11

A MEMORANDUM ON THE APPOINTMENT OF A DIRECTOR OF NURSING SERVICES IN THE MEDICAL DEPARTMENT OF EACH PROVINCE OR STATE

The Central Advisory Board of Health considers that the development of nursing services is one of the most important tasks for all Governments in this country. The number of sanctioned posts in hospitals is quite inadequate in most cases to provide proper nursing to patients. A reasonable though not ideal basis for calculating the number of nurses required is that of one nurse for four beds. Calculated on this basis the number of nurses required for existing hospitals in British India is almost double the number now employed. The majority of the hospitals are experiencing serious difficulty in securing the services of trained nurses. The need for increasing the number of sanctioned posts for nurses in hospitals and for providing the facilities necessary for the training of an adequate number of candidates to fill these posts is therefore urgent.

2 The Board is of opinion that the deficiency is due *inter alia* to the unsatisfactory conditions in which the training and work of the nursing profession is carried out, more especially conditions affecting provision of off duty leisure accommodation, feeding and adequate facilities for study. The Board is of opinion that substantial improvement in these respects must be effected if the nursing profession is to appeal to that large section of the Indian public from which recruits could, in more favourable circumstances, be drawn.

3 The Central Advisory Board of Health also invites the attention of Governments of Provinces and States to the large opening which exists for the employment of trained male nurses and recommends that in those areas where the training of such nurses is not in force, early steps be taken to introduce it.

4 As an immediate step to improve the existing unsatisfactory situation the Board recommends to the Government of India and Governments of Provinces and States —

(i) the creation of a provincial nursing service with a provincial cadre of nurses in the first instance for posts above the rank of staff nurse or staff midwife and later extending to all ranks.

(The Hon'ble Khim Bahadur Mauter Jalaluddin Ahmed, Minister-in-Charge, Public Health and Local Self-Government Department, Bengal, the Hon'ble Mr P N Saprú and Major General R H Candy, C.I.E., K.H.S., I.M.S., Surgeon General with the Government of Bombay, dissented from this resolution)

(ii) the creation of a post of Superintendent of Nursing Services on the staff of the Administrative Medical Officer in the larger Provinces for the general administration of the services, for the distribution of Government grants-in-aid for the organisation of nursing education both under-graduate and post-graduate, for the maintenance of an information service designed to enlighten and stimulate local authorities, and for the development of the service in an orderly and co-ordinated manner.

(iii) the creation of a Central Nursing Council at an early date as recommended by the Board at its fourth meeting.

5 The Board agrees that, for the smaller provinces, a combined post of Registrar to the Nurses Registration Council and of Superintendent of Nursing Services is likely to meet the situation.

Item No. 12

MEMORANDUM ON THE PROCEEDINGS AND RECOMMENDATIONS OF THE FOOD CONFERENCE OF THE UNITED NATIONS HELD AT HOT SPRINGS, U S A, IN MAY-JUNE, 1943

The Central Advisory Board of Health considered the recommendations of the United Nations conference on Food and Agriculture on the subject of nutrition. It endorses the views of the Conference on the far-reaching effect of nutrition on public health and recommends that full attention should be given to its findings in planning reconstruction, with the objective of improving the diet and health of the population. It strongly recommends that a trained nutrition worker should be attached to Provincial and State Health Departments and that Provincial and State Nutrition Committees should be established. Such Committees cannot, however, function successfully unless they are guided by expert advice on nutrition questions.

(Major General R. H. Candy dissented from this resolution.)

The Central Advisory Board of Health observes with approval that the National Nutrition Advisory Committee of the Indian Research Fund Association has been dealing with urgent problems arising out of the food situation.

With reference to Resolution No. 7 of the United Nations Conference on the establishment of National Nutrition Organisations, the Board recommends that the Government of India should immediately investigate the need for modifying or developing India's present National Nutrition Advisory Committee in order to provide a national organisation for India with the functions described in the Resolution. It considers the application in practice of the results of nutrition research to be of the greatest importance.

APPENDICES

APPENDIX I

(AGENDA ITEM No. 3)

Statement regarding the prevention of persons suffering from infectious diseases from travelling in public conveyance

The Central Advisory Board of Health discussed at its last meeting in January 1942 a memorandum on the prevention of persons suffering from contagious diseases from travelling in public conveyances. The Board, while recognising that more measures designed to control the movements of persons suffering from infectious disease can hardly be effective unless they form part of a wider scheme under which the general health services are strengthened and the health administration of the country raised to a definitely higher level of efficiency than that which prevails at present desired that the question of evolving some practical improvements in control should be further examined.

2 It is considered that in view of the difficult transport problems with which the railway authorities have to contend the present time is inopportune for investigating, in conjunction with the railway authorities, the possibility of improvements in control. The examination of this question has accordingly been postponed for the present.

APPENDIX II

(AGENDA ITEM NO. 4)

A Note by the office of the Central Advisory Board of Health on the "Memorandum on Anæmia in Pregnancy in India", forwarded by the Indian Research Fund Association

Anæmia occupies a high place in the list of causes of maternal morbidity and mortality in this country. In many places it is second and in some it is first among the different causes of maternal mortality and, as a contributory factor to death, its importance is probably even greater.

Such information as is available indicates that maternal mortality is high throughout India. Different investigations in limited areas have provided figures ranging from 166 per 1,000 live births to the almost incredible and probably exceptional figure of 137 maternal deaths per 1,000 live births in one district of Assam in which a special enquiry was carried out by Dr. Margaret Balfour. With such high rates for maternal mortality it is clear that anæmia, one of the principal causes, is a health problem of primary importance.

Between 1925 and 1939 anæmia in pregnancy was investigated by a number of research workers under the auspices of the Indian Research Fund Association. In view of importance of this public health problem the Scientific Advisory Board of the Indian Research Fund Association recommended that a Memorandum dealing with the results of these enquiries as well as the standard technique in regard to hæmatological methods and methods of survey should be published and submitted to the Central Advisory Board of Health with the object of drawing the attention of all Provincial and State Governments to the very important subject of anæmia.

The Memorandum which is now being submitted to the Board contains a review of the present position regarding anæmia in pregnancy in India, a note on the standard technique in respect of hæmatological methods and two other sections entitled "The need for anæmia centres" and "Conduct of an anæmia enquiry, with forms". The Memorandum should therefore prove to be of great value to the Governments of Provinces and States for the investigation of this important health problem and it is to be hoped that action will be taken to survey the extent of anæmia present in various groups of the population and to apply such preventive measures as are desirable.

APPENDIX III

(AGENDA ITEM No. 5)

Memorandum on Post-War Planning

The Government of India addressed Provincial Governments on the subject of planning for post-war development in the health field in the Department of Education, Health and Lands letter No. D 3392-H(c)/43, dated the 18th September 1943. It is suggested that the general question of planning for post-war development and the position of health reconstruction schemes in the general post-war programme should be discussed at the next meeting of the Central Advisory Board of Health.

APPENDIX IV

(AGENDA ITEM NO. 6)

- 6(a).—To consider a letter, dated 28th December, 1912, from the Secretary, Central Advisory Board of Education, containing a recommendation from that Board that the Central Advisory Boards of Health and Education should jointly consider the problem of the prevention of blindness in this country at an early date

In a letter to the Secretary, Central Advisory Board of Health, dated the 28th December 1912 the Secretary, Central Advisory Board of Education, stated that that Board at its seventh meeting held in January 1912 adopted the following recommendation of a committee appointed by them to examine the question of adopting a uniform Braille Code in the schools for the blind in India—

The Central Advisory Boards of Education and Health should jointly consider the problem of the prevention of blindness in this country at an early date."

- 6(b).—Memorandum by the Director-General, Indian Medical Service, "Blindness in India"

The problem of the blind in India is a subject that might well have engaged the attention of the Central Advisory Board of Health earlier. If the definition of blindness is widened so as to include all persons who are 'so blind as to be unable to perform any work for which eye sight is essential' the figure for the number of the blind in India has been estimated as somewhere between one and two millions. It is therefore evident that here exists an immense field for the amelioration of suffering and of poverty and for turning helpless dependents into socially useful citizens and an economic asset to the community.

In this connection it has been fortunate that the services of Lieut.-Col. S. Clutha Mackenzie could be secured for the investigation of the problem of the blind in India. His work for St. Dunstan's in New Zealand and many other parts of the world is universally known. In January this year the Government of India appointed him as an Officer on Special Duty in the office of the Director-General, Indian Medical Service, in order to investigate the extent of blindness in India and its cause, to carry out a survey of existing societies for the education of blind children and of the means of employing blind men as workers and to prepare a scheme for a National Organisation for the Blind.

He has prepared an interim report in which he has covered the ground most successfully and there is material here for the basis of a successful attack on this considerable social and preventive problem. A copy of the report is attached.

His main proposal is for the formation of an Indian National Society for the blind and, this will, no doubt, have the full support of the Board. It is recommended that this report should be referred to a small but representative committee consisting of members of this Board and of the Advisory Board of Education.

INTERIM REPORT ON BLINDNESS IN INDIA BY LIEUT. COLONEL S. CLUTHA MACKENZIE, OFFICER ON SPECIAL DUTY, OFFICE OF THE DIRECTOR-GENERAL, INDIAN MEDICAL SERVICE

1. NATURE OF THE TASK

The tackling of blindness in India is not a problem—it is a task. We know how the ratio of blindness can be substantially reduced; and we know also the means by which we can educate and give employment to those whose blindness has not been prevented. Our work, therefore, is to discover the best ways and means of putting this knowledge into further effect.

We have no exact evidence as to the precise extent of the blind population. The census of 1911 puts the number at 601,370 but census figures are

notoriously unreliable in such matters as this. Colonel F. W. O. G. Kirwan, basing his estimate on detailed counts of the numbers of blind in certain districts in Bengal and taking the definition of blindness as "a person is blind who can't count the fingers of an outstretched hand placed closed up to the eyes", believes the totally blind to be double that shown in the 1931 census. If the definition were widened to that now broadly adopted in the West for blind welfare services, namely, so blind as to be unable to perform any work for which eye sight is essential, Colonel Kirwan's estimate would again, at the least, be doubled. But to know that whether the figure is one million or two millions, an immense field lies open for practical work—a work which will relieve much poverty and misery, reduce the numbers of poor beggars in our streets, and turn many into economically useful and happy citizens.

The work has its two main sides—

- (a) the prevention and cure of blindness, and
- (b) the education, employment and general welfare of the blind.

2 THE PREVENTION AND CURE OF BLINDNESS

For long decades a fine body of men has given skilled and devoted service to the treatment of eye diseases. In connection with this report figures supplied by the Administrative Medical Officers show that in British India, eye hospitals, eye wards in general hospitals and accredited organisations are annually treating some 1,353,561 patients, of whom approximately 198,235 are in-patients and 1,155,326 out-patients. The number, too, treated by qualified ophthalmologists in private practice must be very large. Nevertheless a huge field for work remains. Colonel Kirwan estimates that 50 per cent of present blindness is curable, others place the percentage of curable and preventable at a substantially higher figure.

The causes of blindness in India and the measures necessary for its prevention and cure have been expertly dealt with in the publications of the societies devoted to the prevention of blindness, in medical journals and in works by leading eye-men, and at present the latest knowledge is being collected with a view to the preparation of a concerted plan. The task set me at this stage is "to investigate the extent of blindness in India and its cause and to carry out a survey of the existing societies for the education of the blind children and of the means of employing trained blind men and women in sheltered industries and to prepare a scheme for the creation of a National Organisation for the Blind of India". A direct connection exists between the prevention of blindness and the giving of welfare services. It is manifestly better in every way to prevent a person becoming blind than to have to educate, employ and care for him as a blind person throughout his life. Not only is there no comparison in cost but all his suffering, handicap and economic loss is avoided. On the other hand, we cannot eliminate blindness altogether. At a minimum it must be the work of two, if not three generations, before we can achieve the 50 per cent reduction which Colonel Kirwan believes is possible, and the blind population, even then, will still number several hundred thousands. A large body of opinion in India feels that the time is ripe for giving this group wider and better welfare services and an improved position in the community. So that is our task—on the one hand to assist in every way the great work of reducing blindness to the minimum, and on the other, to bring education, employment and happier times to those who must inevitably remain blind.

3 THE PRESENT POSITION OF WELFARE WORK

Over the past fifty years a number of societies have been started for the purpose or part-purpose of giving education, employment or welfare services to the blind. Of these 33 are in existence today; and they may be briefly classified in the following way:—

25 are societies for the blind only; 6 are for deaf-mutes as well as the blind; It is in combination with a poor asylum, and 1 with a cripple home.

Of the total 6 are in Indian States and 27 in British India.

They are controlled, 1 by a Provincial Government; 4 by Indian State Governments, 15 by societies created for the purpose, and 9 by Christian Missions, while 4 appear to be privately run.

Altogether they have a total enrolment of 1,156 blind people, of whom 998 are males and 158 are females. Adults among them number 169, while children number 997.

The majority of them receive a small measure of Government and/or municipal aid. No schools have been established in Assam, Orissa, North-West Frontier Province or Baluchistan.

Against the immensity of the task thus represents an extremely small, though gallant effort. Severally handicapped by lack of money faced by an apathetic public ill-equipped with staff they have been able to make but little change in the life of the mass of the blind. Yet they have shown convincingly enough that the blind of India are as apt pupils and as keen learners as the blind of any other country. The children in the higher classes are most proficient at Braille, at type-writing, at music and at various handicrafts; but the big problem the societies have not been able to solve is the employment of the trained blind. Lack of money and public apathy are, of course, a constant contributory difficulty, but there are two other major causes—(a) training on not altogether appropriate lines, and (b) the competition of begging.

4 REASONS FOR THE NON-SUCCESS OF EMPLOYMENT

The training has been copied in too wholesale a manner from Britain, and America with too great a bias towards academic learning and too much emphasis on Braille. The result is young men who, though they can read and write well, have only the remotest prospects of earning for themselves. Almost none of the 33 schools can give a satisfactory account as to the employment of their ex-trainees. The aim of education is to equip young people to earn their living and to take their full part in the life of the community. If it is not succeeding in this, some modification in method is due. The changes need to be towards a keying-in better with the general life of India, taking blind welfare work stage by stage, marching in step with the general social advancement of the people, rather than attempting undue short cuts straight to the point which western blind welfare work has reached. It has taken the west at least a hundred and fifty years to bring its work from the point where almost the whole of the blind had no choice but to be poverty-stricken beggars. The adverse circumstances in the Indian picture have been common to all lands, and have had to be met by a painstaking process of trial and error. Nevertheless with the advantage of the knowledge gained in the west, plus that of the schools which have done a valuable pioneer work here, we should be able to cut that century and a half to a considerable degree. That the existing societies in India should not have achieved more is no reflection upon them. It was, and is, a phase through which the work has to pass in its evolution towards better things; and it forms a good foundation on which to build further.

5 THE FACTOR OF BEGGING

Begging, the oldest traditional occupation of the blind has been their greatest competitor. It is in essence the "Social Security system" of past centuries. The various religions enjoin upon their followers to give generously of what they have to the poor, the crippled and the sick, and they will find favour in God's sight. Though this system has many abuses, though it is degrading to the dignity of man, yet it has guaranteed the helpless against starvation. A small number of the blind in India have long found some sort of employment in repeating passages from sacred works in temples and mosques, in music, singing and teaching, in punkah pulling, husking and grinding grains, but most have been beggars. The earnings of beggars vary considerably Rs. 5, 15, 20 a month and even more. To poor parents a small blind child is actually an asset, capable of being hired out to professional beggars for four and five annas a day. Usually no social stigma is attached to blind people begging; and consequently, societies for the blind find it difficult to interest many of

Moon type is done efficiently and economically by the National Institute for the Blind in London, and similar centralisation is advisable here. This course is strongly advocated in the Report of the Uniform Braille Code Committee, 1912.

(d) *Braille and Talking Book Library*—A central as well as a number of provincial libraries, is desirable, both for Braille and for the talking book. (This latter is a development in English speaking countries of the past seven years.) Complete works are speech recorded on long-playing gramophone records. Reproducing machines are supplied on easy terms by societies for the blind, and libraries lend the records free.)

(e) *Research Department*—Concerned with the investigation of new avenues of employment for the blind, new methods of training, new apparatus and so on.

(f) *National Welfare Department*—While the schools, workshops and welfare societies do all in their power directly to train and establish the blind, much of their advance depends upon securing the full co-operation of governments, official bodies and the public. Various legislative enactments are necessary affecting both the prevention of blindness and the education and employment of the blind paralleling similar measures in other countries. In most lands, too, to offset the economic disadvantage of the blind, and the extra costs to which they are put, through the need to employ escorts and pay double fares, it is now an established practice for concessions to be granted to blind people in respect of transport, admission to cinemas and other entertainments, radio licences and so forth, while apparatus for the blind is usually admitted duty free, and special reading matter carried at concession rates through the post. The seeing public has to be educated to support societies for the blind to purchase the goods from their workshops and to make use of the services of the capable blind people. All these are tasks which can be done more effectively by a National Society, acting for the whole rather than by scattered individual units.

Another of its tasks is to help in initiating steps in areas where insufficient services exist, for the setting up of schools, workshops and other facilities and to assist in the running of appeals and the maintenance of revenues by the Provincial societies.

It would publish a small journal with articles on developments in technique and to keep societies in touch with each other's work. Periodically it would organise All India conferences to enable workers to meet to discuss problems and exchange experiences. It is scarcely necessary to say that the vigorous functioning of this department is essential if substantial progress is to be made.

(g) *'After Care' Department*—A present lack in India is a proper system of after care. Much of the effort and money spent on the training of the blind in many parts of the world has hitherto been thrown away because of the lack of adequate after-care organisations. It is of small service to train a blind worker, and then to turn him out into an unsympathetic world to fend for himself. In all but a minimum of cases he will fail to make his way. It is essential that the society, which has trained him, should find a job for him, spend what sum is required on tools, and place to work and on otherwise getting him started, and that there should be an officer of the society who can visit him regularly and help him to surmount the occasional difficulties which will face him. The after-care service often provides raw material at basic cost and helps to find a market for finished goods. It may be necessary for the National Society to have such a department to act as a model.

3 FINANCING AND CONSTITUTION.

It will be gathered from the foregoing that the services required are very considerable, and that both a large outlay in capital and in annual maintenance is required.

Blind welfare work has always been pioneered by private philanthropy, and only when it has proved its practical success have governments begun to share in cost and management. In some spheres governments have now taken charge.

The complete field of services to the blind, in a modern country such as Britain, cover the following —

A comprehensive Blind Persons Act, charges local authorities throughout Britain with the responsibility for making necessary provision for the blind people of their areas and to debiting the cost to the rates, plus some contribution from the central government.

Under this and other Acts affecting blind welfare, such as the compulsory education of blind children, every urban and country authority sees to it that there is provision for the education of children and facilities for the vocational training and the employment of the "employable blind". The local authority makes allowances to the workers on a sliding scale in relationship to their earning, to augment their wages and compensate them for their lower earning power compared with seeing workers. The "employable" blind are paid sustenance allowances by the local authorities. In addition to this main provision a variety of separate or associated societies give special services—sunshine homes for pre-school blind children and babies; instructions to parents as to the care of blind children, boarding schools and colleges for specially able children and the children from wealthier homes for higher education in the professions, music, etc., a special school for messages, classes in sighted schools where blind pupils work alongside seeing pupils, special classes for the deaf-blind and the mentally backward blind; students' libraries of hand-written Braille works for the use of blind students and adults who wish to study special subjects; after-care departments to see to the placement and success of the blind who take up independent employments in the community; co-operative marketing agencies for manufactures from blind workshops and home workers; libraries of Braille, Moon and talking book works; a wide service in Braille periodicals, Braille printing presses; voluntary workers for transcribing books into Braille; clubs for entertainment, music and sport; home-visiting societies to teach the blind who cannot leave their homes to read and write; do home duties and simple handicraft; homes for the aged and invalid blind; associations for the teachers of the blind; trade unions of blind workers; and so on.

These represent developments, specialisations and refinements which can and will be fitted into the work in India stage by stage as resources and the changing social order allow. Today, in Britain, the Dominions and America, as a result of this system, the employable blind are contributing an integral share of the war-effort. Workshops for the blind are turning out great quantities of war materials. Many blind workers have taken their place at the assembly benches in munition and aeroplane factories, some are owners, directors or managers of plants on war work, others operate war telephone exchanges or A. R. P. posts, many are mechanics, farmers, war lecturers and so forth. The employable blind community as a whole proudly takes its competent place in the war effort.

II A GENERAL INITIAL POLICY FOR PROVINCIAL SOCIETIES.

On what section of the foregoing comprehensive field should we in India first begin?

There are two main fields for the employment of the blind, (a) sheltered industries, carried out in special workshops, where the blind workers attend as sighted workers do at ordinary commercial factories and earn wages; and (b) the various independent occupations which the trained blind can follow such as law, music, farming, shop keeping, insurance agency, message and so on. This latter field however, calls for far higher expenditure than the former; it calls too for a sighted public much more highly educated in the needs and the capacity of the blind community. It is a stage which will need to be developed later. Moreover, most blind people belong to the poorer, less intelligent section of the community, men who cannot be trained to lead successful lives as independent units, and so if we are to be guided by the principle of the greatest good to the greatest number we come to the conclusion that at the present stage our main line of action is to give a simple education and manual training which will have at its end permanent wage-earning employment in sheltered workshops.

Once, one or more small, sound, practical units of this kind are firmly established in each Province they can be used as a foundation for expansion. One of the most important things is to use them as a successful as a convincing demonstration of what can be done in order to convert sceptical members of Governments into firm believers and friends of the system. They can be used for press and cinema purposes and those recruiting new blind pupils in the districts, can be given facts and figures to convince parents of blind children and young blind men of the practical money value of training. As time goes on similar units can be established in other towns, and other departments of blind welfare work added to these sound foundations.

In this type of unit, the buildings and grounds should be divided into two separate areas and departments—

- (a) The School and school boys boarding department, playground, etc.
- (b) The Workshops, quarters for adult workers and grounds.

To fit in with the fixed objective of training the boys for manual trades in sheltered workshops, most of the present primary school training wants substantial modification. The academic and literary education should be simplified. The children should be admitted at about five years of age, if born blind, or if losing their sight after the age of five, within a year of the loss of sight. They should not remain in the school after the age of about 15. During these years the syllabus is best confined to simple education in the reading and writing of their mother-tongue, simple arithmetic and knowledge of simple facts, weight and measurement calculations, personal hygiene, music, physical development, games, home domestic duties and much time on hand-work, especially as they approach the age for passing on to the workshops. Latterly they should be putting in three or four hours a day on their future trade.

During the earlier stages of our building-up of blind welfare work the managements should not hesitate to terminate the stay of any pupils lacking

aspects, are not discussed at all. These will be dealt with in the final report, but it is hoped that what is said does give a broad and reasonable picture of the situation as it is and the work before us.

The co-operation, which is being shown by everyone associated with the work, is most helpful, and there seems to be everywhere a deep and very earnest desire to see a big step forward in this field of social effort and to assist in it. I believe I am justified in saying that, from my experience of the last few months, opinion is ripe for the making of that effort and that a concerted appeal would find a generous response throughout the whole country.

A big appeal, as we know, has not only the effect of raising funds, but all the publicity, associated with it, is a wide education to the public, particularly in the direction of influencing parents and friends of the blind to send them for training.

A Report on the working of the Scheme of the Bihar Government for the Compulsory Inoculation of Pilgrims attending the Sitamarhi fairs in the years 1942 and 1943.

The Central Advisory Board of Health at its third meeting in July 1940 adopted the report of the special committee appointed to examine the possibility of introducing a system of compulsory inoculation of pilgrims against cholera, and recommended that Provincial and State Governments should study the Pandharpur scheme of indirect compulsory inoculation and that they should for a start select suitable festival centres for trying out this scheme. As far as is known only the Government of Bihar carried out this recommendation of the Board. In this Province the Ramnavami fair at Sitamarhi in the district of Muzaffarpur was selected for inaugurating the scheme. Encouraging success has already been achieved at the fairs held in 1942 and 1943 as regards the enforcement of inoculation and the control of cholera. The reports sent by the Director of Public Health on the two festivals are briefly summarised below.

In 1942 the festival started on 21st March and ended on 6th April. A notification was issued by the Provincial Government under the Epidemic Diseases Act making it compulsory, between 21st March and 9th April 1942, on all pilgrims and visitors to the Ramnavami fair at Sitamarhi to be inoculated against cholera within the previous six months before they entered the mela area. Before the commencement of the mela a considerable amount of propaganda was carried out in order to inform the public of the aims and objects of the scheme. Leaflets were distributed, posters were put up at many railway stations and other important places, a doctor was sent to Sitamarhi well ahead of the festival to inform the people of the proposed measures and press notes were issued. Nevertheless there was considerable opposition to the scheme from the public. Further, those who were responsible for the organisation of the festival, shopkeepers and other businessmen in the area also protested against the introduction of a measure which they considered was bound to keep away visitors and pilgrims and thus affect their income. The enforcement of the scheme was not devoid of trouble in its early stages. However, many uninoculated pilgrims who forcibly entered the mela area were induced to go back and others were inoculated by the doctors on duty. The majority of the women visitors could not be inoculated. No arrests were made and no cases were instituted under the Epidemic Diseases Act; but with tactful handling of the people it was possible to inoculate about 80—85 per cent of those who visited the festival. The number of visitors to the festival which had in previous years been about 50,000 dropped in 1942 to about 25,000.

From the point of view of preventing the spread of cholera this inoculation campaign proved eminently satisfactory. Sporadic cases of the disease had occurred in some parts of Muzaffarpur district prior to and during the festival, but the disease showed no increase after the mela which had usually been the case in previous years. During the period between 21st March and 9th April 1942 only five suspected cases of cholera were reported in the festival area and all the patients recovered.

The report for 1943 gives a brighter picture of the response from the people than that disclosed in the report for 1942. Every attempt was made as in the previous year to secure the co-operation of the public by informing them of the real objects of the scheme. A travelling dispensary motor van of the Public Health Department with loud speakers, microphone, posters, pamphlets, leaflets and notices toured the districts of Darbhanga, Champaran and Muzaffarpur from which pilgrims generally attend this festival. In addition other forms of propaganda such as publicity through the press were also adopted. This educational work among the people during the two years 1942 and 1943 appears to have borne fruit because the Director of Public Health has stated that in 1943

the atmosphere in which the inoculation campaign was conducted appeared to be quite congenial and that there was no serious opposition from the people. On the present occasion about 70,000 visitors and pilgrims attended the festival and of these about 90 per cent were inoculated.

As regards the incidence of cholera, Sitamarhi and two neighbouring villages had outbreaks of cholera before the mela. However during the festival period only six cases of the disease were reported in or near Sitamarhi town and of these one proved fatal. The Director of Public Health has stated that there was no evidence that immunised people from the Sitamarhi fair had spread the infection to other places.

In view of the successful experiment at Sitamarhi it is hoped that the Governments of other Provinces and States will give effect to the recommendation of the Committee of the Central Advisory Board of Health.

from the date at administration of lime, samples of water are re-examined by the well net in order to ascertain whether any Cyclops are present or not. Experience has shown that three "luning" operations are sufficient to destroy the Cyclops completely.

Treatment of cases

The following methods of treatment were adopted:—

(i) *Oral treatment*—Ammonium chloride in a dose of 20 grains per adult was given first thing in the morning with curds for one week. This was seen to reduce the swelling and to drive out the worm to the surface.

(ii) *Local treatment*—The mouth of the worm was touched with pure carbolic acid and the wound, if septic was dressed with carbolic lotion, 1:40, for a few days. This process clears the wound and destroys the embryos of the worm. Treatment with a constant dribble of water was also recommended. Some cases were treated by injecting the body of the worm with mercury perchloride lotion 1 in 10,000. It was reported that the worms came out quickly. Acriflavine was also injected with good results.

The success achieved by these measures is indicated by the results obtained in four heavily infected villages, the relevant figures for which are set out below:—

Name of the village	Population	Number of patients in				
		1938-39	1939-40	1940-41	1941-42	1942-43
Kimbuva T. Patan	1,154	37	21	4	3	0
Sevala T. Chanasma	918	86	10	8	6	0
Adia, Taj Hari	1,893	225	120	7	5	2
Varela Tal Patan	366	90	2	2	2	1

A tabular statement showing the results obtained in all the sixty infected villages is attached to this report.

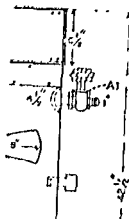
However gratifying these results may appear to be, no permanent suppression of the infection can be achieved without protecting the water supplies in the affected areas against re-infection by the carrying out of such structural changes as may be necessary and by securing the intelligent co-operation of the people through their proper instruction in the mode of transmission of the disease.

Prevention of re-infection of the large step wells along the caravan routes is a matter of supreme importance from the point of view of the health of the people in the areas concerned. In carrying out the necessary structural changes it will no doubt be inappropriate to destroy their artistic features. Any additional money that may be involved in meeting both these requirements will be a wise expenditure of public funds.

The comparative statement showing guinea worm cases in the North Mehsana District, Baroda State, for the years 1938-39 and 1942-43.

Serial No.	Name of the village	Population	Cases in the year		Remarks
			1938-39	1942-43	
Talan Tal'ia					
1	A. Bar	2232	43		
2	Phalsona	510	3		
3	La. Up	3156	12		
4	Kumbhara	1454	37		
5	Varela	366	91	1	
6	Tharav	1002	12		
7	Chavara	925	7		
8	Porvatar	622	12		
9	Samud	2159	29		

ANTI-GUINEA-WORM WORK



- H. HANDLE WORKS THE GEAR AND ROTATES THE FANS IN OPPOSITE DIRECTIONS.
- D. FUNNEL AND DI PIPE TAKE THE SOLUTION OF THE LIME TO THE BOTTOM OF THE TANK.
- A1 VALVE TAKES THE SOLUTION TO THE BOTTOM OF THE WELL.
- A2 VALVE REMOVES THE SOLID RESIDUE.
- B1 & ARE MERE BANDS FOR ADDING STRENGTH TO THE MACHINE. SOLUTION IS FILLED UP ONLY TO THE TOP OF THE BAND B1.

Health and the Air Force medical authorities in the same area can suitable schemes be worked out and put into force. In order to establish close liaison between Air Force authorities and the Director of Public Health and the local health authorities, a Deputy Senior Medical Officer (Anti-malaria) was appointed at the Headquarters of each Royal Air Force Group. In this way it is understood that an effective liaison has already been established between the Air Force medical authorities and the civil health authorities concerned.

4 In addition to providing funds at the rate of Rs. 6,000 per aerodrome the War Department have also agreed to supply free of cost, from military stocks, necessary stores and equipment for prosecuting antimalarial measures in the civil rural areas surrounding aerodromes.

5 It is suggested that any difficulties experienced in connection with the scheme should be discussed at the meeting of the Central Advisory Board of Health.

6 While these measures were primarily designed to safeguard the health of the Air Force personnel and to ensure the operational value of the services, they are not without their beneficial effect on the villagers themselves who live around these aerodromes. For the first time they will have been given the benefit of organised antimalarial and general sanitary measures with sufficient funds and staff provided for their execution.

7 Apart from an improvement in the health of the village communities concerned, the distribution of these rural health organisations all over the country will provide opportunities for Provincial Public Health Departments to estimate the result of applying limited funds and staff to rural populations living under varying conditions and of assessing the extent to which the co-operation of the local inhabitants can be developed for improving the sanitation of their environment. These organisations should therefore constitute a new line of attack on the rural health problem and the experience that they provide should help to supplement the experience which certain Provincial and State Governments have acquired in the past through the development of health units with their standardised methods of organisation and higher types of health personnel. An objection that has been advanced against the health unit system is that Provincial and State Governments cannot under existing conditions afford the expenditure necessary for covering their areas with a network of such units. The new units around aerodromes can with advantage be considered as valuable experiments towards the evolution of a cheaper type of health organisation.

important health subjects by the representatives of the Governments of the country will have little meaning unless the decisions reached at the conferences are studied with a view to their implementation as soon as favourable conditions supervene.

On the other hand, there are other recommendations made by the Board at the past four meetings, which might have been accepted and carried into effect by health administrations in spite of the war. Examples are the recommendations dealing with—

(1) the training of medical and health officers in nutrition and the carrying out of diet surveys,

(2) the adoption of the standards of purity for different articles of food recommended by the Food Adulteration Committee,

(3) the provision of prenatal and postnatal clinics in all teaching hospitals

(4) the establishment of joint health boards for cooperation among local railway, military and civil health authorities for the solution of common problems,

(5) the establishment of Boards of Health at provincial headquarters and of health bureaux at the headquarters of districts,

(6) the carrying out of an experiment on the lines of the Pandharpur scheme for the enforcement of compulsory inoculation of pilgrims;

(7) improvement in the teaching of hygiene in medical schools and colleges

(8) the provision of facilities for the health education of teachers and school children

(9) the establishment of Physical Education Committees; and

(10) the cultivation of pyrethrum in areas suitable for the purpose.

In respect of some of these resolutions of the Board the action so far taken by certain Governments has been disappointing but, in the case of others the progress reported indicates a desire on their part to make such advance as is possible under present day conditions. Further, the extent to which different Governments have found it possible to give effect to each of these recommendations has varied. The detailed notes on individual subjects that are incorporated in this memorandum show what has been done in the various Provinces and States. The following brief remarks are, however, made for the purpose of giving a bird's eye view of the progress reported by Governments.

Nutrition classes were held in the Nutrition Research Laboratories, Coonoor, during each of the years from 1936 to 1942. These were attended by medical

- D. the confining of the functions of maternity and child welfare centres primarily to preventive work and the prevention of their assuming the functions of hospitals or dispensaries; as a corollary the provision of greater numbers of rural dispensaries and of rural medical officers,
- E. research into the problems associated with maternity and child welfare work, and
- F the giving of grants-in-aid by Government to well organized maternity and child welfare schemes not only for stimulating local bodies to improve their services but also for giving the Provincial Public Health Department a measure of control and supervision over these schemes

A — Posts of specially trained medical women devoting their whole time to the development of maternity and child welfare work exist in the Provinces of Madras, Bengal, the United Provinces and Orissa and in Hyderabad State. In Madras she is an Assistant Director of Public Health. In the United Provinces the maternity and child welfare organization is controlled by the provincial branch of the Indian Red Cross Society which employs a Director of Maternity and Child Welfare. This lady works under the direct supervision of the Director of Public Health, who is also the Vice-Chairman of the United Provinces Branch of the Indian Red Cross Society. The Provincial Government gives an annual contribution of Rs 1,52,600 on the understanding that local maternity centres are maintained on approved lines.

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In their report the Committee pointed out that however expedient this arrangement might have been in the past when public health departments were neither sufficiently developed nor suitably staffed, it was open to argument whether the policy of delegating to a voluntary body the provincial organisation of maternity and child welfare and the administration of Government grants-in-aid should be continued. It is for consideration whether the incorporation of this branch of public health activity with the other functions performed by the provincial Public Health Department will not in the long run prove more effective for the satisfactory development of the service. The provincial Director of Maternity and Child Welfare will have a better status as an officer on the staff of the Director of Public Health than as a servant of a voluntary organisation even though liaison has been established between this organisation and the provincial Health Department through the Director of Public Health being made the Vice-Chairman of the Society. Further, the incorporation of the maternity and child welfare service in the provincial Public Health Department will help towards the institution of preventive work in the homes of the people on an organised basis. It is undesirable that a multiplicity of health visitors should bombard the homes with advice on different matters, such as the health of the infant and nursing mother, of the schoolchild or of a tuberculosis patient. A single person with all round training should be able to give the necessary service in all these directions and should, at the same time, be able to win the confidence of the mother and thus help to ensure that the teaching is translated into practice. Lastly, if the medical facilities of the Provincial Government are to be utilised for the development of the maternity and child welfare organisation, a voluntary body in charge of this work will find it more difficult to secure the necessary co-ordination of effort than the provincial Public Health Department.

In Bengal, Hyderabad State and Orissa the women doctors appointed to the post have had special training in maternity and child welfare work. In Orissa, however, the description of the post is "Superintendent of Medical Aid to Women and Children" and this officer carries out the supervision of both preventive and curative health work.

In certain Provinces the women doctors engaged in the supervision of maternity and child welfare work do not possess special qualifications. The Central Provinces have a joint post of Superintendent of the Nagpur Health School and Assistant to the Director of Public Health. If she carry out the functions of the Superintendent of Maternity and Child Welfare, it is clear that she cannot effectively do child welfare

Hyderabad.—A proposal for the establishment of welfare centres throughout the State is under consideration by Government as part of a general public health scheme.

Baroda—All maternity homes with 10 or more beds are provided with lady-doctors. Smaller homes are managed by midwives and by doctors in-charge of dispensaries in urban and rural areas.

Jodhpur.—Two maternity and child welfare centres with well trained staff have been working in Jodhpur city for many years. New centres with qualified staff have been started in some districts and it is stated that more will be opened after the results achieved by the existing centres have become evident.

C.—The provision of greater facilities for the training of medical students and midwives in prenatal and postnatal work and the establishment of well-organised prenatal and postnatal clinics in all teaching hospitals was the third recommendation for consideration by Governments of Provinces and States. In the Provinces of Bombay, Delhi, Madras and Punjab, it is stated that the teaching hospitals provide adequate facilities for the training of medical students in prenatal and postnatal work. In Bengal some facilities for such teaching exist in the Medical Schools and Colleges but they are not considered adequate and the resolution of the Board has been brought to the notice of the authorities of teaching institutions with a request that existing facilities should be improved. In the United Provinces the curriculum of medical studies in the Lucknow University includes prenatal and postnatal clinics and the training is given in the department of Obstetrics and Gynaecology of the Faculty of Medicine of the University. In the Agra Medical College no regular antenatal and postnatal clinics are conducted, but the students are given training in antenatal care in the out-patient department of the Thompson hospital and in postnatal work in the indoor wards where patients are admitted for confinement. In Bihar the existing facilities for prenatal and postnatal training of medical students and pupil midwives are stated to be adequate in the Patna Medical College hospital. In the hospital attached to the Medical School hospital at Darbhanga the students are given facilities to examine cases in the in- and out-patient departments but no special clinics are held.

In Orissa prenatal and postnatal clinics are held at the Lady Hubback Maternity and Child Welfare Centre, Cuttack, and at the Cuttack General Hospital. In Hyderabad State provision exists for prenatal and postnatal clinics at the two central hospitals of the city. In North-West Frontier Province and Baroda there are no medical schools or colleges, but special facilities for such training have been provided for midwives, nurse-dais and dais. In Sind no action seems to have been taken except to bring this resolution of the Board to the notice of the respective authorities of the teaching hospitals in the Province and of the Sind Nurses, Midwives, Health Visitors and Dais Council. In the Central Provinces no action has so far been taken and the question of providing greater facilities for the training of medical students and midwives in postnatal and prenatal work will be considered by that Government only after the war.

D.—The Committee laid emphasis on the preventive aspect of the work done at the child welfare centres and stated that these centres should not assume the functions of a hospital or dispensary. The replies state that, in general, the preventive aspect of maternity and child welfare work is emphasised in the different provinces.

As a corollary to the recommendation that the work of child welfare centres should be mainly preventive the Board stressed the view that greater numbers of rural dispensaries and rural medical officers should be provided.

The replies show that progress is being made in this direction in a few places. For instance the Government of Bombay have sanctioned the appointment of some 320 subsidised medical practitioners for rural areas, of whom 270 have actually been appointed. In Hyderabad recommendations for the expansion of rural medical aid are under the consideration of that Government.

The Food Adulteration Committee has now completed its examination of the legislative and administrative aspects of the problem and its report is before the Board for consideration.

The replies from Provinces and States show that the recommendations of the Board have largely been accepted by the Provinces. In respect of individual standards for particular articles of food certain Governments have not found it possible to accept the standards recommended by the Board. As these variations will be brought before the Central Committee for Food Standards it is not considered necessary to include them here.

Leprosy Committee's Report.

Leprosy and its control is another important health problem which was comprehensively dealt with by a special committee appointed by the Board. The recommendations contained in this report were accepted by the Board at its fourth meeting in January 1942. In commending the report for consideration by the authorities concerned the Board drew special attention to the following:—

(1) The particular susceptibility of children to the disease and the paramount importance of the prevention of infection among them.

(2) The responsibility of provincial and local authorities for maintaining in isolation at least those persons who are in an infective stage of the disease, as segregation of infective patients continues to be the most important measure against leprosy.

(3) Control of the admission of patients from other provinces into leprosy institutions in individual provinces by limiting the Government's capitation grant for future admissions to patients of the province concerned, except in respect of infective cases.

(4) The carrying out of leprosy surveys on the lines of the Report of the Leprosy Survey Sub-committee of the Indian Research Fund Association.

(5) Antileprosy propaganda in schools and in teachers' training institutions especially in view of the importance of the control of the disease amongst children.

(6) The desirability of the attention of the Medical Council of India being drawn to the paragraphs in the report which deal with the question of adequate training for doctors in the diagnosis and treatment of leprosy. These remarks of the Leprosy Committee relate to an improvement of the teaching in leprosy during the undergraduate course as well as to the provision of facilities for post-graduate training in the subject.

(7) Admission of non-infective cases of leprosy, if necessary, in the general wards and of infective cases in the infectious wards of hospitals.

(8) The establishment of a Leprosy Institute of India by the Government of India.

(9) The need for an antileprosy policy in the Provinces with reasonable financial provision, this policy should include the establishment of a Provincial Sanatorium to act as the hub of antileprosy work in the Province and the appointment of a Provincial Leprosy Officer with high medical qualifications and wide experience of antileprosy work.

(10) The desirability of a comprehensive Act incorporating the existing and projected legislation on leprosy, necessity for making infective as well as non-infective cases of leprosy notifiable, the desirability of making existing legal provisions with a view to facilitating travel by lepers and improvement in leprosy institutions.

The time that has elapsed since the report was received by the Government has been too short to expect any substantial action on its recommendations. Such limited action as has been taken in the Provinces is summarised below.

In Delhi it is stated that a survey carried out by the Leprosy Officer of the British Empire Leprosy Survey Commission has shown low incidence of the disease and that it has been decided to take elaborate measures for control.

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of leprosy surveys cannot be undertaken and the question will receive special attention when conditions return to normal.

The Madras Public Health Act, which makes all cases of leprosy notifiable is being amended to make it applicable only to cases of "open leprosy", and restrictions have also been suggested in the amending bill for regulating the transport in public conveyances of persons suffering from the disease.

The resolution of the Board recommending an improvement in the teaching of leprosy in the medical curriculum was forwarded to the Medical Council of India, which sent a copy of the resolution and of the relevant extracts from the Leprosy Committee's report to the British India Universities included in the First Schedule to the Indian Medical Council Act, 1933, for report as to the arrangements which exist in the affiliated colleges for the teaching of the subject. A summary of the information received was placed before the Executive Committee of the Medical Council of India at its meeting held on the 26th March 1943. The Committee directed that it be suggested to the various Universities that special training in the diagnosis and treatment of leprosy on modern lines should be provided for the students of medical colleges. The various Universities were accordingly addressed by the Secretary, Medical Council of India, and the replies received from the Universities are summarised below.

Patna University—It is stated that special instruction in the diagnosis and treatment of leprosy on modern lines has already been included in the medical curriculum of the Patna University and the students of the final year of the Prince of Wales Medical College are given six lectures with practical teaching every year at the leprosy clinics.

Andhra University—Special instruction in the diagnosis and treatment of leprosy on modern lines is said to be provided for the students of the Andhra Medical College.

Calcutta University—The reply states that leprosy is taught in the Medical Colleges and demonstrations and clinics are given to the students in the outdoor hospitals of the skin department.

Lucknow University—Special instruction in the diagnosis and treatment of leprosy on modern lines is said to be provided for the students of the King George's Medical College. There is a skin outpatient subsection attached to this hospital where final year students get clinical instruction on diseases of the skin including leprosy. Ten attendances are essential. In addition to this two attendances at the leprosy hospital are compulsory. The University authorities consider that facilities for short postgraduate training in leprosy may be provided at different institutions where enough material is available for those who specially undertake this work.

Bombay University—As diagnosis and treatment of leprosy are already included in the course of study in the medical course of the Bombay University it is said that no special attention is called for in this behalf.

Madras University—The decision of the Committee has already been forwarded to the principals of the Medical Colleges for information and guidance. Provision has already been made in the University for imparting instruction in the treatment of leprosy as contemplated in the resolution of the Committee.

Punjab University—It is stated that lectures with demonstrations on leprosy are delivered by the Provincial Leprosy Officer to the 5th year students during the month of October each year. The Medical Faculty considers that the present teaching arrangement for the undergraduates is sufficient; the additional teaching should be carried out at the postgraduate stage.

The establishment of a Leprosy Institute of India has been recommended to the Government of India by the Board. While its establishment will have to be postponed till after the war, it is considered that the details of the scheme should now be discussed in order to get its establishment agreed to in principle. Thus a considerable amount of delay that would otherwise

of the results of a prolonged study of the cholera problem under the auspices of the Indian Research Fund Association had indicated this as a promising line of attack on the disease.

There has been some amount of overlapping in the resolutions passed by the Board at the successive meetings. For instance, the importance of using anti-cholera vaccine prepared from true strains of the cholera organism was emphasised at both the second and third meetings. Such repetition was done purposely in order to stress the importance of the recommendation. In the following paragraphs the main lines of action suggested by the Board for the control of cholera are briefly stated and the extent to which action on such lines has been taken in the Provinces and States is indicated.

The measures recommended by the Board are —

1 Implementation by Governments of the recommendations contained in the various Pilgrim Committees' Reports prepared during 1913—16, particularly in connection with the control of cholera

The Pilgrim Committees' reports were issued between 1913 and 1916 and relate to the Provinces of Madras, Bombay (including Sind), Bihar and Orissa, the United Provinces, Punjab, Bengal and Central Provinces. In these Provinces all important festival centres were visited and detailed instructions were given in the reports for the control of such centres from the point of view of the health and comfort of the pilgrims.

The replies from the United Provinces, Punjab, Bengal and Bihar state that as far as possible the recommendations of the Pilgrim Committees' reports have been carried out while in Central Provinces and Berar it is stated that the recommendations could not be implemented for want of funds. The Government of Bombay have replied that the recommendations of the Provincial Pilgrims Committee have been carried out at Pandharpur fair. In Madras it is stated that, on the basis of the recommendations of the Pilgrim Committee and the actual experience of the management of fairs and festivals, a memorandum was prepared as far back as 1923 for the guidance of local bodies and the public health staff. Arrangements for water supply, conservancy, food control, segregation and treatment of infectious disease, anti-cholera inoculation, etc. are said to be made both at the festival centres and at places en route.

2 The supplies of anti-cholera vaccine employed by medical and public health departments should be prepared from the true strains of *V. cholera*.

The cholera vaccine manufactured at the Central Research Institute, Kasauli, and at the Provincial Laboratories are made from the true strains. The replies show that all Governments except those of Bihar and Orissa are using vaccines derived from such sources. The Public Health Departments of Bihar and Orissa obtain their supplies from certain commercial firms in Calcutta. It is pointed out that, in order to ensure that the cholera vaccines supplied by these firms are prepared from true strains of cholera vibrio, it has been made obligatory on the firms to obtain true strains of the vibrio from the Directors of the Central Research Institute, the King Institute or the Calcutta School of Tropical Medicine. In Bihar a proposal is under consideration for the manufacture of cholera vaccine in the public health laboratory of the Province. It is reported that samples of cholera vaccine supplied by these firms are sent by the Bihar Public Health Department to the Central Research Institute, Kasauli, for test while in Orissa arrangements have been made for the examination of such samples in the provincial public health laboratory.

3 Each Provincial and State Government should draw up definite and detailed plans for the sanitary control of all festival centres in their territories and these plans should include clear instructions for the guidance of local officers responsible for the sanitation of individual festivals and of the routes likely to be used by the pilgrims.

Elaborate arrangements for the control of the health conditions in major festival centres are made in most Provinces. Instances are the Kumbh Mela

(b) To meet the cost of health measures, including inoculation of pilgrims at the festival centre, the imposition of taxes on pilgrims and on vehicles and animals entering a festival area has been recommended, the funds thus collected being kept apart from the general revenues of the local body or Government collecting them and handed over to the Pilgrim Committee of the festival centre for being used strictly for the benefit of pilgrims.

In Sind a pilgrim tax of annas 2 is levied in respect of the Lal Sahbaz fair, the money collected being utilised by the Sanitary Board which is responsible for the control of the fair. In the United Provinces a pilgrim tax is being collected through railways at some of the important pilgrim centres of the Province. The amounts so collected are credited to the local bodies concerned on the condition that it should be utilised for the benefit of the pilgrims. No further action has been taken in view of the decision of that Government not to introduce for the present a scheme of compulsory inoculation. In Bihar no powers exist at present for the Provincial Government to impose a pilgrim tax or a tax on vehicles or animals entering the festival centres. In view of the fact that the Provincial Legislature has ceased to function for some time, it has not been considered expedient to undertake the necessary legislation until the legislature starts functioning again. In Madras Presidency provision already exists in Section 118 of the Public Health Act. In Bengal, while there is no provision under any Provincial Act for collecting a pilgrim tax or a terminal tax of any kind, a surcharge is being levied under an executive order on all tickets issued by the steamer companies engaged in the transport of pilgrims proceeding to the Ganga Sagar Mela. In the Central Provinces taxes can be levied, with the approval of the Commissioner of the Division, on pilgrims, animals and shops or booths. The money so collected must be credited in full to Government and expenditure in connection with the fair concerned should be met from the grant placed at the disposal of the Deputy Commissioner by Government. In respect of fairs the management of which has been entrusted to fair committees the Deputy Commissioner can open an account for each fair with a Bank approved by Government, deposit the receipts in the Bank and authorise expenditure from this fund for the purpose connected with the fair. In Orissa a terminal tax on railway passengers is levied under the Bihar and Orissa Places of Pilgrimage Act, 1920, the proceeds of which are spent on improving the sanitary condition of the pilgrim centres concerned. In Bombay the Bombay District Municipal Act, 1901 and the Bombay Municipal Boroughs Act, 1925, provide for the imposition of a tax on pilgrims for expenditure on the health and convenience of pilgrims and for the administration of the proceeds of the tax by pilgrim committees. The Mysore Government have permitted the imposition of a pilgrim tax in certain places. No pilgrim committees have yet been formed and the funds collected from the tax are administered by the local bodies concerned. In Hyderabad State the recommendation regarding the imposition of a pilgrim tax has been accepted by Government. The question of administration of the funds so collected by the Pilgrim Committee and not by the local body is now being considered.

(c) The utilisation of the services of specially trained sanitary inspectors for carrying out inoculation under the supervision of qualified medical men.

In Madras and Bombay Presidencies and in Hyderabad State the services of such inspectors are utilised for the purpose. On the other hand, the Government of the Central Provinces are not in favour of employing non-medical men for carrying out inoculation while from Sind and Mysore State it is reported that there has been no difficulty in getting medical men for such duties. In the United Provinces a scheme for the training of sanitary inspectors for this purpose has been approved by Government and arrangements are being made for their training. In Bihar and Bengal the matter is under consideration by the respective Governments.

(d) The free supply of vaccine by Governments to local bodies.

In Delhi, Orissa, Bengal, Madras, Central Provinces and in Hyderabad State anti-cholera vaccine is supplied free of cost by the Governments concerned to the local bodies. In Sind cholera vaccine seems to have been supplied

indiscriminate pollution of the soil and to encourage the use of bored-hole and other cheap forms of rural latrines, no special action has been indicated in the reply. In the Central Provinces it is stated that a scheme is under preparation by the Director of Public Health which will in due course be considered by that Government. The Governments of the States of Hyderabad, Baroda and Mysore also point out that no cholera endemic areas exist in their territories. In Hyderabad the question of providing safe water supplies and improved conservancy in the rural areas is stated to be receiving the attention of the Public Health Department.

Development of Public Health Organisations in the Provinces and States

The question of developing public health organisations in the Provinces and States was discussed at the first and second meetings of the Board. The recommendations of the Board include (A) the enactment of the necessary legislation, wherever it does not exist, in order to enable Governments to require local bodies to appoint medical officers of health and to lay down suitable conditions regarding the recruitment, qualifications and terms of service of health officers, (B) the allotment of adequate funds by Governments and local bodies for the development of public health organisations and the formulation of public health schemes in municipalities and districts and the institution of a system of grants-in-aid from Governments to local bodies towards the same end; (C) the establishment of a Health Board at the headquarters of the Province or State and of Health Bureaux or Committees in each district in order to promote co-ordinated effort in preventive medicine between the Medical and Public Health Departments, (D) the establishment of "Health Units" in the different Provinces and States and an expansion of the activities of these health units to wider areas and to larger populations and (E) the passing of a consolidated Public Health Act in each Province or State.

A.—In the Provinces of Madras, United Provinces and Punjab it is stated that powers already exist for the Provincial Governments concerned to require local bodies to appoint medical officers of health and to regulate the conditions of service. This is also the case in the North-West Frontier Province where the Punjab Municipal Act is in operation. In Sind it is reported that the Provincial Government has acquired powers by an amendment of the Bombay Local Boards Act for the compulsory appointment of health officers by local bodies and that, as the response from these bodies has not been satisfactory, Government after waiting for a reasonable period of time contemplates taking action to enforce the appointment of these officers. This Government has also prescribed suitable conditions regarding the recruitment, qualifications and terms of service of health officers and sanitary inspectors. In Bengal the question of fresh legislation to enable Government to compel local bodies to appoint health officers has been postponed till after the war. Powers already exist in this Province for Government to lay down suitable conditions for the recruitment, qualifications and terms of service of health officers and sanitary inspectors. In Assam the question is under the consideration of Government. In the Central Provinces a Public Health Bill on the lines of Madras Public Health Act has been drafted but its consideration has been postponed till after the war. Rules laying down conditions for recruitment, qualifications, etc. for health officers and sanitary inspectors have already been framed. In Bihar ten districts have already been provided with health officers and subordinate staff. The Government propose to complete the scheme in the remaining six districts of this Province. In five of these health officers have already been appointed. The Public Health Department of Mysore was reorganised in 1929 with qualified health officers and suitable subordinate staff. In Hyderabad State the question of compelling local bodies to appoint medical officers of health is under consideration while departmental orders laying down suitable conditions for recruitment, qualifications, etc. already exist. The necessity for legislation in this respect will be considered when a revised district health scheme now under consideration by Government is sanctioned. Baroda city municipality employs a fully-qualified health officer and Government consider that the incomes of other municipalities and district boards are not sufficient to enable them to

as to the nature and scope of those health problems the solution of which requires co-operation between the civil and railway health authorities, and the second recommending that all Provincial and State Governments should take steps to establish combined local health committees in those centres in which joint health problems require the co-operation of all the three authorities for their solution.

The replies show that an encouraging measure of progress has been made in a number of Provinces to implement these two resolutions of the Board. In Sind such joint boards have been established at each of the district headquarter towns. In the North West Frontier Province and in the Punjab, it is stated that close co-operation already exists between the civil, military and railway health authorities. In both the Provinces, joint committees have been formed in a number of places. Schemes for anti-malaria work are carried out in co-operation. In Delhi Province it is stated that there is intimate collaboration between the three authorities concerned in matters of mutual interest, particularly in regard to the control of malaria, although a combined local committee as suggested by the Board has not yet been established. In Madras Presidency it is stated that the provisions in the municipal and local boards Acts and of the Public Health Act apply to a varying extent to the jurisdiction of the railway authorities in the Province and that there is a considerable measure of co-operation between the civil and railway health authorities. No mention has been made of the appointment of a joint committee as recommended by the Board, nor is any information given regarding co-operation with military health authorities. In Bombay Presidency the stage so far reached is that of collecting information regarding the extent and nature of health problems to be dealt with in specific local areas, in the solution of which co-operation between civil and railway authorities should be sought. As regards the formation of joint committees it is stated that the opinions of collectors have been called for. A Committee was formed for anti-malaria measures in Poona area, but it could do little or nothing for financial reasons. In Orissa co-operation between the Public Health Department and railway authorities is stated to exist especially for the control of epidemics during fairs and festivals and also to a certain extent for the control of malaria along the railway lines. The Government of the Central Provinces state that they have on several occasions approached the military and railway authorities offering and inviting co-operation on public health matters of common interest. It has not been stated whether these efforts have succeeded in the establishment of such co-operation for the solution of common problems. In the United Provinces information is being collected by the Director of Public Health from the different medical officers of the railways connected with the Province on the lines indicated by the Board. As regards the formation of joint health committees action on the lines suggested by the Board has been postponed till after the war, but instructions have been issued to selected municipal medical officers of health to call together *ad hoc* meetings under the chairmanship of the District Magistrates for considering general health matters whenever this becomes necessary. The replies from the States of Hyderabad and Bundelkhand indicate that close co-operation already exists between the civil, military and railway medical officers. In Mysore State a local health committee has been constituted by Government and it consists of representatives of health authorities of the Civil and Military station, Bangalore, the Madras and Southern Mahratta Railway, the Mysore State Railway and the Bangalore City municipality with the Director of Public Health as its chairman.

Nutrition Surveys

At the first meeting of the Central Advisory Board of Health the subject of nutrition surveys was discussed by the Board and recommendations were made—

- (1) The desirability of training a number of medical and health officers in nutrition work so that they may be able to advise on problems related with malnutrition and deficiency disease.
- (2) The desirability of conducting dietary surveys in each Province and

F—The carrying out of statistical studies in the field of medicine and public health with the utmost possible vigour with the aid of trained medical statistical workers.

A.—The extent to which public health staffs have been employed in the municipal and non-municipal areas varies considerably among the Provinces and States and the extent to which they can effectively supervise the work of registrars of births and deaths differs correspondingly. General instructions to the inspecting officers of Revenue and other departments to inspect the work of registrars of births and deaths during their tours seem to have been issued in a number of provinces including the United Provinces, Bombay, Madras, Punjab and Mysore State.

In Bombay it is stated that inspecting officers instruct registrars of births and deaths and explain to them the correct methods of registering vital statistics. In the United Provinces in municipal areas ward members are authorised to check statistics in addition to the health staff. In Bengal a system has been introduced in some districts under which the records from the local areas are sent direct to the district health officer in whose office they are compiled. It is stated that this system has given better results on the whole.

B—Medical registrars are working only in the large cities of Calcutta, Bombay, Madras, Ahmedabad, Agra and Cawnpore. As an experimental measure two medical registrars have been working in the town of Amritsar in the Punjab for the past two years. In other areas, urban and rural, no medical registrars are employed. Various methods are being tried in the different Provinces and States for securing trained non-medical men for appointment as registrars. Thus, in the United Provinces, the proposal is to entrust the work of registration of vital statistics in smaller municipalities to sanitary inspectors after they are given training for three months at the Provincial Hygiene Institute. This proposal will take effect only after the war. In Madras Presidency a registrar in municipal towns must possess a minimum qualification equivalent to the matriculation as well as training for a period of six weeks in vital statistics given by a first class health officer, or he must have the qualification of a sanitary inspector.

In the municipalities of Delhi City, New Delhi and Notified Area Committee, Civil Lines in Delhi Province the causes of death are verified by special doctors appointed by these municipalities for this purpose.

C—A system of central compilation of the vital statistics from local areas has been brought into being in the Provinces of Sind, Bihar, Delhi and Punjab. The scheme was in operation in Madras Presidency and in Mysore State before it was recommended by the Central Advisory Board of Health. In Bengal the Madras scheme is being considered by that Government. In Orissa and in British State the centralisation of the work of compilation has been partially carried out. In the United Provinces, the Central Provinces and North West Frontier Province no action has so far been taken on this resolution.

The recommendation of the Board for the establishment of a Bureau of Vital Statistics under the charge of a trained medical statistician in the headquarters office of every Provincial and State Public Health Department has been carried out in the Punjab and Bihar. In Bengal a Superintendent of Statistics with appropriate training has been appointed and the question of establishing a Bureau of Statistics is under consideration by the Provincial Government. In Madras Presidency and Mysore this Bureau existed with a trained statistician in charge before the recommendation of the Board was made. In other Provinces and States the resolution has not so far been implemented.

The desire expressed by the Board that Provincial and State Governments should co-ordinate to the fullest possible extent with the Central Government's Public Health Department in respect of epidemiological and other vital statistics is met with an excellent response from Governments all over the country. Before this resolution was passed Provincial Governments

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For the purpose of drawing valid conclusions there should be a preliminary health survey before prohibition starts in any area and periodical surveys at subsequent dates. This is possible only if new areas are brought under prohibition. Prohibition started in certain Provinces when Congress Governments were in power and after the resignation of the Congress ministries no new areas have been brought under prohibition.

Prohibition is a highly controversial subject and an ill-planned and imperfectly performed survey is likely to do more harm than good. The Board therefore agreed at their fourth meeting that, under existing conditions, it is not desirable to issue instructions to the Provinces concerned for carrying out health surveys of the inhabitants of the prohibition areas.

Endemic Fluorosis

At the suggestion of the Minister for Public Health in Madras that the problem associated with the presence of fluorine in water supplies was one suitable for investigation it was recommended by the Board that the Provinces concerned should make such investigations and present the results.

Two interesting reports submitted by the Governments of Madras and the Punjab were discussed by the Board at its third meeting and three resolutions were passed, the first two relating to the Provinces of Madras and the Punjab respectively and the third relating to all other Provinces. To the Government of Madras it was suggested that steps should be taken to improve the nutrition of the people in the affected areas and that further research into the problem of cheap methods of removing fluorides in drinking water supplies under rural conditions should be carried out.

Further work on this subject which has been reported from Madras does not include the special lines of action suggested by the Board.

As regards the Punjab the Board drew attention to the desirability of field investigations regarding the prevalence of endemic fluorosis in those areas where the drinking water supplies contain a large proportion of fluorides. It was also suggested that this study might take into consideration the diet of the people of the affected areas and its bearing on the incidence of the disease.

Upto the 14th May, 1911, 448 samples of waters from different sources in 27 of the 29 districts in the Punjab have been examined. The samples came from 95 localities in those districts and of the total 89 samples were from Kasur in Lahore district. In every case, the estimation of fluorine content was carried out by Sanchi's method as modified by Dr. C. G. Pandit, Director, King Institute, Guindy.

The concentration of fluorine is higher than one part per million in 33 of the 95 localities from which samples were taken. In only one of these localities, i.e. Kasur it is definitely known that the condition of mottled enamel is endemic. Here the amounts of fluorine present in the water varied from 0.0 to 5.0 parts per million. In waters from 4 other centres, namely, Rohtak, Gambar in Montgomery district, Malakhal in Mianwali district and Chak No 143 in Lyallpur district amounts higher than those were found, i.e., 6.8, 8.0, 6.0 and 6.8 parts per million.

No information is available as to whether in these and other centres from which water containing relatively high concentrations of fluorine were obtained, investigations were carried out to determine the prevalence or absence of mottled enamel.

It is stated that the investigations so far carried out suggest that the fluorine content of shallow well waters is higher than that of deep well waters in the Punjab. If this should prove correct the policy in this Province of replacing shallow wells by deep tube-wells, which is stated to be in progress, should eliminate any possible danger of endemic fluorosis.

To the other Provinces it was recommended that if fluorosis constitutes a health problem further investigations should be pursued on similar lines.

available examinations are done in the Government Chemico-Bacteriological Laboratory at Karachi. In addition all samples sent to this laboratory from Government aided hospitals and dispensaries are examined free. In the case of local bodies the first five samples are examined free and subsequent samples at a charge of Re 1 per sample. The Sind Government have also extended the facilities of this laboratory to Khairpur State for the examination of specimens from cases of infectious disease. The United Provinces Government are stated to be examining the possibility of utilising existing laboratory facilities at headquarters of districts. In connection with the A.R.P., pathological laboratories have been opened at Benares, Cawnpore, Allahabad, Lucknow and Meerut. It is not stated whether these are offering facilities to general practitioners and to doctors in charge of hospitals and dispensaries for the diagnosis of infectious disease. In Bihar the Government, while accepting the principle of establishing laboratories at suitable centres, have so far confined action to the examination of a proposal for establishing a laboratory at Ranchi. In Bombay the Haflkine Institute provides free laboratory service to private practitioners in suspected cases of enteric fever and this concession has now been extended to clinical material from cases of other infectious diseases. In North West Frontier Province a Provincial Laboratory exists at Peshawar and small laboratories in each district head-quarter hospital. At these, examination of material sent by Government medical officers is done free of charge. In Delhi Province all specimens from cases of infectious disease are examined free at the Provincial laboratory. In Madras Presidency, in addition to the King Institute, Guindy, two regional laboratories have been opened at the Erskine Hospital, Madurai, and at the Andhra Medical College Vizagapatam respectively. Examination of specimens submitted by medical practitioners is done on payment of the prescribed fee. In the Central Provinces laboratories were recently established at Amraoti and Raipur and the Provincial Government are considering the possibility of establishing fully equipped laboratories also commending to four of the laboratories under their respective bacteriologists. In Orissa laboratory facilities of varying standards of efficiency exist in the Provincial Pathological & Public Health Laboratory, in the district headquarter hospitals, in most of the sub divisional hospitals and even in a few rural dispensaries. In Mysore laboratory facilities exist in the cities of Bangalore and Mysore in Kolse Gold Fields and at the headquarters of districts. In Baroda a Central laboratory exists at which examination of clinical material from cases of infectious disease is carried out free of charge. In Assam and Hyderabad the subject is under consideration by the respective Governments. In Bengal it has been decided to postpone the consideration of the scheme until the war emergency is over while in the Punjab it has not been possible so far to give effect to the resolution of the Board.

Effect of Bad Housing and Overcrowding on Tuberculosis

The Board discussed at its third meeting two memoranda submitted by the Tuberculosis Association of India, and the office of the Central Advisory Board of Health respectively on the effect of bad housing and overcrowding on tuberculosis. The Board passed a resolution pointing out the necessity for improvement of housing by clearing slums and congested areas in towns and cities and for the exercise of rigorous control over new housing schemes on the cleared slum areas by the strict enforcement of building by-laws.

Any definite advance in slum clearance and the establishment of improved housing conditions must necessarily be slow and the replies indicate that apart from general instructions to municipalities and other local bodies for the enforcement of building by-laws, very little has been done for the improvement of housing conditions. A brief indication is given of the various measures being taken by the Board and the Government which has been

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replies received from the Governments is not materially different from the conclusions reached by the Committee in their report which is quoted below —

"While the general situation on paper sounds satisfactory the low standards of personal and environmental hygiene met with in many schools are such as to forbid an easy acceptance that all is well. These low standards lead to the conclusion that something is wrong with the content of the syllabuses and the methods of teaching hygiene both in training institutions for teachers and in schools for children."

Improvement of the Teaching of Hygiene and Public Health in Medical Colleges and Schools

At the inaugural meeting of the Central Advisory Board of Health in June 1937, the Board adopted a resolution drawing the attention of Governments of the Provincial Medical Councils and of the Medical Council of India to the necessity for improvement in the teaching of hygiene and public health as part of the medical colleges and schools' curricula for medical qualification and registration. A copy of this resolution was forwarded to the Secretary, Medical Council of India, and to Provincial Governments for the information of the Provincial Medical Councils. The Medical Council of India obtained from the different Universities, whose qualifications are included in the First Schedule of the Indian Medical Council Act, 1933, details regarding the instruction given and examinations held in the subjects of hygiene and public health as well as suggestions for improving the teaching of these subjects. The replies received from the Universities were examined by a sub-committee consisting of Colonel J. A. S. Phillips, I.M.S., Rai Bahadur Dr. D. D. Pandya and the Public Health Commissioner with the Government of India.

At their meeting held on 26/27th August 1940 the Executive Committee of the Medical Council of India, after considering the information given by the Universities and the remarks of the sub-committee, resolved "that the information collected should be forwarded to the Inspector appointed to inspect the examination and courses of instruction in the subjects of hygiene and public health and he will be requested to take notes regarding the development of health museums in various Universities as well as to draw the attention of the authorities to the importance of the preventive aspect of medicine throughout the medical curriculum to which attention has been drawn in the Council's recommendation on provisional education No II(3) 2."

Recommendation No. II(3) of the recommendations of the Medical Council of India reads as follows—

"That throughout the whole period of study the attention of the student should be directed by his teachers to the importance of the preventive aspect of medicine and of measures for the assessment and maintenance of normal health."

Lieut.-Colonel A. C. Chatterjee, I.M.S., and Rai Bahadur D. D. Pandya were appointed as Inspectors and they carried out their inspection of the different Universities during the years 1940 and 1941. The inspection reports which contain various suggestions for improving the courses have been forwarded to the Universities concerned by the Medical Council of India.

Opium Addiction and its Control in Assam

Two reports on this subject by the Government of Assam and by the Director, School of Tropical Medicine, Calcutta, respectively were discussed by the Board at its third meeting in July 1940. The Board recommended that copies of these reports should be circulated to all Provincial and State Governments. This has been done. The Government of Assam have now suspended the scheme.

Hospitalisation and Treatment of Plague cases

The Board discussed at its third meeting a scheme for the hospitalisation and treatment of plague cases submitted by the Government of Madras and

commended it to the earnest consideration of all Governments. The purpose was to afford opportunities for the field testing of the value of an anti-plague serum manufactured at the Haffkine Institute Bombay, and of sulphapyridine and sulphathiazole in the treatment of plague. Such trials have so far been carried out on proper lines in the Patna Raj in Bihar and at Latur in Hyderabad State. The results obtained show that all the three forms of treatment produce a definite reduction in the case mortality rate of plague as compared with ordinary symptomatic treatment and the trials at Latur indicate that, of the three, sulphathiazole appears to be the best.

For various reasons, such as the absence of plague or the cost of the scheme, other Governments have not provided opportunities for the experiment. The reply from the Government of Madras shows that provision has been made for such a trial in Hosur Taluk of Salem district during 1943-44.

Quinine Supplies in India

As regards the resolutions on quinine supplies in India which were passed at the first meeting of the Board the enquiry regarding cinchona cultivation which was proposed by the Indian Research Fund Association was carried out by Mr Wilson Deputy Director of Agriculture, Cinchona, Madras, and Dr. T. J. Mirchandani Agricultural Chemist, Bihar Government, and a report on the prospects of cinchona cultivation in India was published as Miscellaneous Bulletin No. 29 by the Imperial Council of Agricultural Research. The report was forwarded to Provincial Governments. The other resolutions dealt with making India self-sufficient in the matter of quinine, the reduction of its price, control by the Central Government of production, distribution and sale and propaganda amongst the people on the value of the drug.

It is understood that the Bengal Government have expanded their cinchona plantations and are now producing about 60,000 lbs a year. The Madras Government were unable to commit themselves to a large expansion programme owing to the capital expenditure involved and the possibility of the discovery of a cheap substitute for quinine but were prepared to work towards a limited degree of self-sufficiency provided the Government of India guaranteed a minimum selling price and an assured market. Owing to the war no further progress could be made in regard to these proposals. When Java was occupied by the Japanese steps were taken to bring as large an area as possible under a short period method of production under which quinine can be obtained in 3½ years as compared with the normal period of about 7 years. Arrangements have been made for 1,570 acres to be brought under this method of production, 500 in Bengal and 1,070 in Madras. It is expected that at least 2,000 lbs of total alkaloids will be obtained from this method of production in 1944/45.

No action has been taken in regard to the proposal that the Government should control the production of quinine in view of the importance of one of the producing Provinces.

The position in regard to the price at which quinine is sold remains unchanged.

The replies from the Provinces of the United Provinces, Punjab, Bihar, Delhi, Assam and the Central Provinces show that under existing conditions it will not be possible to formulate programmes for implementing these recommendations. The replies of the Governments of Madras and Bengal refer to their rural water supply schemes which have been described in the memorandum entitled "Water Supplies in Rural Areas" which was discussed at the fourth meeting of the Board in Bombay Presidency. In 1911-12, 1912-43 and 1913-44 a provision of about Rs. 15 lakhs each year was made in the budget for rural water supplies. In 1937-38 a provision of Rs. 10 lakhs had been made for the same purpose. In the same way budget allotments were made during the years 1938-39, 1939-40 and 1940-41 but the amounts allotted have not been stated. Instructions have been issued for the investigation of urgent water supply schemes and the question of maintenance in regard to village water supplies is also said to be under consideration.

In Hyderabad State there is a Well-Sinking Department with a Special Officer at its head for the development of rural water supplies. This Department investigates the question of water scarcity as well as the extent of guinea-worm infection, and constructs new wells besides remodelling step wells into draw wells. The original annual grant of Rs. 3.5 lakhs was raised to Rs. 5 lakhs in 1939 and 1940 and further increased to Rs. 8 lakhs from 1941 onwards. The total expenditure by this Department upto 1942 is about Rs. 62.67 lakhs. The Government of Mysore formed a rural water supply fund with the purpose of providing every village in the State with proper drinking water wells within five years. District Committees have been formed in order to work out details for individual districts. Recommendations regarding technical details of the scheme are under consideration by Government.

All-India Nursing Council

The Central Advisory Board of Health recommended at its fourth meeting that the Central Government should consider the constitution at a very early date of a Central Nursing Council in order to co-ordinate the activities of the Provincial Nursing Councils and to advise on nursing problems of common interest to all Provinces, to establish uniform standards of preliminary education for admission to schools of nursing; to arrange for supervising the courses of training and for inspecting the conduct of the examinations prescribed by the various Councils and other examining bodies throughout British India; to maintain a schedule of nursing qualifications recognised for interprovincial reciprocity of registration and to arrange for reciprocal registration with authorities in countries and States outside British India.

This recommendation of the Board was submitted to the Government of India, and in examining the proposal the Government of India in the Education, Health and Lands Department pointed out that legislation to set up a Central Nursing Council could only be proceeded with in consultation with Provincial Governments and that it would be difficult to ask them to undertake this work at the present time. It was accordingly suggested that a more profitable line of approach would be to consider whether a non-statutory body representative of the nursing profession could not be set up to consider and advise on problems relating to demobilisation, the recommendations of which may be conveniently passed on to the Provincial Governments and Nursing Councils. This suggestion was considered both sound and welcome because such a non-statutory body could be set up without much delay and could help to coordinate the views of provincial nursing councils, while the experience gained in the interim period would be most valuable when considering details for the final draft of the Bill to constitute an All-India Nursing Council. Accordingly the formation of a Nursing Advisory Committee with the following personnel has been suggested:—

Director General, Indian Medical Service (Chairman).

Members.

Chief Lady Superintendent, Office of Director General, Indian Medical Service.

Chief Principal Matron, Medical Directorate,
 One representative from each statutory Nursing Council
 Three registered medical practitioners, and
 Three registered nurses nominated by the Governor General in Council
 This proposal is at present being examined by the Government of India.

Zoning of Industrial Areas

The Central Advisory Board of Health at its fourth meeting in January 1942 discussed the problem of zoning of industrial areas and recommended to Provincial and State Governments action on the following lines —

(1) the passing of Town Planning Acts wherever such legislation does not exist at present;

(2) the appointment of a Director of Town Planning in order that expert advice may be given to local authorities regarding schemes, and

(3) the appointment of an advisory committee at the headquarters of each Province or State the members of which will include the Director of Public Health, the Director of Town Planning and the Sanitary Engineer to Government and might also include the Director of Industries, a representative of commerce or industry and the Chief Inspector of Factories

Town Planning Acts exist in the Provinces of Sind, Bombay, Madras, Punjab, and the United Provinces. It is stated that in Bihar and in Bengal such legislation will be undertaken only after the war. In Delhi Province the enactment of a Town Planning Act is not considered necessary because the Delhi Improvement Trust has been taking action for the relief of congestion in overcrowded areas through slum clearance schemes. It has also in hand a scheme for the provision of a suitable area in which all future large scale industrial development would be located. The New Delhi area is administered on the lines laid down by the original town planners of the new capital under the guidance of Sir Edwin Lutyens. In the Punjab the existing Town Planning legislation applies only to urban areas but steps are being taken to amend the District Boards Act so as to enable planning in rural areas also. In Mysore the drafting of a Town Planning Bill is stated to be under the consideration of a committee consisting of the Director of Public Health, the Director of Town Planning and the Chief Engineer. The replies from other Provinces and States do not state that a Town Planning Act is under contemplation.

Town planning officers have been appointed in the Provinces of Madras and the Punjab as well as in Mysore State. In Sind, it is stated that there is a Consulting Surveyor to the Govt of Sind who gives advice to local bodies whenever they refer questions to him.

The proposed committee at each Provincial or State headquarters to offer technical advice to Govt. and to local authorities and to industrial concerns regarding housing schemes has not been set up in any Province or State. The replies from the Provinces of Madras, Punjab and Sind specifically state that it has not been considered necessary to set up a committee of the kind proposed.

Mosquito Control in Rural Areas

The problem of controlling rural malaria is particularly important in India because the incidence of the disease in the rural areas is definitely higher than that in urban centres. Moreover, in the former the population is scattered over immense areas and there are usually vast numbers of water collections which afford favourable breeding places for malaria-carrying mosquitoes, thus making the institution of control measures extremely difficult. During recent years considerable success in the control of malaria epidemics in rural areas has been attained by the spraying of dwellings with pyrethrum insecticides in order to kill adult mosquitoes. The Central Advisory Board of Health at its fourth meeting in January, 1942, discussed a memorandum submitted by the Director of the Malaria Institute of India on this subject and drew the attention of Govts. to the desirability of employing this method for control of effectively epidemics of malaria in rural areas. The Board also pointed

that, while pyrethrum has been successfully grown in Kashmir, in certain parts of the Punjab and North West Frontier Province, in the Nilgiris, Palni and Cardamom Hills in South India, Governments should undertake to extend its cultivation in the areas where it is known to flourish and that they should also explore the possibility of cultivating it in other places.

The discussion of this subject by the Central Advisory Board of Health and the success achieved by the use of this method of malaria control in limited areas such as in Delhi Province have no doubt helped to arouse interest in the spray-killing of adult mosquitoes. As regards Delhi Province the Chief Health Officer reports that "the rural population have taken kindly to it and that those who can afford it are willing to spend money and carry it out themselves". As an instance of wider interest among Provincial Public Health Departments in this method of control may be mentioned the fact that the demands from these Departments for supplies of pyrethrum extract during 1943, for civil use have been more than double the quantity they obtained during 1942.

The areas in which the cultivation of pyrethrum is being carried out have already been indicated. The replies show that experiments regarding its cultivation are also being made in Coorg, in Baluchistan, the United Provinces and Bengal.

It is reported from the Central Provinces that a small experiment was carried out in which a pyrethrum extract was prepared locally by using kerosene oil on chopped pyrethrum flowers and this insecticide was used for the spray-killing of adult mosquitoes in a small forest village. The experiment was on so small a scale that a more extended trial should be made before conclusions are drawn regarding its effectiveness.

Compulsory Revaccination against Smallpox

In 1932 the Government of Madras made revaccination compulsory at intervals of 10 years for all persons living in the Province outside the City of Madras. In Madras city this law was introduced only in 1936, the interval between successive vaccinations being fixed at 7 years. The success achieved in the reduction of smallpox incidence was so conspicuous that, at the instance of the Government of Madras, the subject of making revaccination compulsory was discussed by the Central Advisory Board of Health at its fourth meeting in January 1942. The Board expressed the view that Governments should introduce such measures as might be necessary to make it possible to enforce the periodical revaccination of the population and thus make a determined effort to reduce the incidence of smallpox.

The period which has elapsed since the Provincial Governments received the opinion of the Board is short and the replies from the Provinces and States show that the Board's recommendation has not so far been carried into effect. The Governments of the United Provinces, Bihar, Bombay and Bengal state that the question will not be considered for the period of the war. Assam does not consider it necessary to make revaccination compulsory while, in the Central Provinces, the view held is that resort to compulsory revaccination is not desirable before primary vaccination is made compulsory throughout the province. In the Punjab a bill is being drafted for making primary vaccination compulsory throughout the Province and for enabling local bodies to make revaccination compulsory at prescribed intervals. In Orissa the vaccination laws prevalent in the Northern and Southern parts of the Province are different and in the unified Vaccination Act that is under consideration, provision will be made for the enforcement of compulsory revaccination. In Hyderabad State a Vaccination Bill, which is under consideration by Government contains provision for compulsory revaccination.

The Inclusion of more detailed Information in Public Health Reports regarding the Administration of Sanitary Law in Urban Areas

The Government of the United Provinces submitted a memorandum to the Central Advisory Board of Health at its fourth meeting indicating the lines on

which more detailed information regarding the existing sanitary defects and the measures taken to remedy them in urban centres can be incorporated in Provincial Public Health Reports. The Board recommended that as far as possible, the suggestions contained in the memorandum should be adopted by the Governments of Provinces and States.

The Provinces of Assam, Orissa, Delhi and Sind as well as the States of Hyderabad, Baroda and Jodhpur have accepted the recommendation of the Board. The Government of Madras have agreed to the inclusion of such items of information as would be useful and could, at the same time, be collected without a great deal of trouble. In the Central Provinces the decision reached is that the inclusion of all the suggested items of information will be done for one year as an experimental measure and that this decision will be subject to alteration in the light of the difficulties experienced in collecting, compiling and publishing this additional information. In Bengal the matter is under consideration, while in the Punjab, United Provinces and Bombay the inclusion of such information will not be done during the period of the war.

Prevention of Persons suffering from Infectious Diseases from Travelling in Public Conveyance

A statement on this subject has been circulated to all the members as agenda item No. 3 for the fifth meeting of the Board.

Experiments carried out in Trichinopoly for Chlorinating Water Supplies with Minimal Doses of Chlorine

At the second meeting of the Board in January 1943 the Minister for Public Health in Madras referred to certain experiments conducted under the supervision of the Director, King Institute, Guindy, for chlorinating water supplies with minimal doses of chlorine. He also promised to send to the Secretary of the Board a note on the subject. This note was received, 1,000 copies of it were printed and they were distributed to the Governments of Provinces and States.

Only three replies have been received regarding the action taken by the respective Governments. In Sind copies of the note were supplied to the medical officers of health of Karachi, Hyderabad, Sukkur and Shukarpur Municipalities, in the United Provinces to the Medical Officer in Charge of the Provincial Hygiene Institute and the Superintending Engineer of the Public Health Department and in Madras to the Sanitary Engineer, the Director of Public Health and the Director, King Institute, Guindy.

Distribution of Health Literature by the Central Advisory Board of Health.

The Secretary of the Central Advisory Board of Health has, within the past few years, circulated to the Provincial and State Governments as well as to their Directors of Public Health copies of various forms of literature dealing with health subjects. A list of the material so far distributed is given

8 Report on the Prospects of Cinchona Cultivation in India by Mr A. Wilson, Dy Director of Agriculture, Cinchona, Madras

9. A note on "The sterilization of drinking water with minimal doses of chlorine" by the Director, King Institute, Guindy.

10 Model rules for meat inspection and for the inspection of slaughter houses.

11 Technical directions concerning the House Improvement Scheme of the Plague Control Service of the Netherlands Indian Public Health Service.

12 Report on Tuberculosis in Burma, by Colonel S Lyle Cummins, C.B., C M G, M D., LL D., A M S (Retd.)

13 Posters on "Vegetable" and "Teeth" issued by the Health Officer, New Delhi

14 Pamphlet issued by the Chief Health Officer, Delhi, containing instructions in Urdu to peasants for the growing of fresh vegetable.

15 Type designs of rat proof godowns constructed at Ootacamund and Salem and of rat proof hut constructed in Cumbum Valley, Madura, Madras.

16 League of Nations document No C H 1401 [C H /Corn Exp. Alim/ 50(2)], dated March, 1939—"Guiding principles for studies on the nutrition of populations", by Dr E. J Bigwood, Professor at the University of Brussels, issued by the Technical Commission of the Health Organisation.

17 League of Nations European Conference on rural life 1939—Technical documentation—General Survey of medico-social Policy in rural areas, prepared under the auspices of the Health Committee

18 League of Nations publication "New technical efforts towards a better nutrition, Geneva, 1938"

19 League of Nations publication "World Health and the League, 1939".

20 League of Nations European Conference on Rural Life 1939—Technical documentation—Population and agriculture with special reference to agricultural overpopulation—Contribution by the International Institute of Agriculture (Document No 1)

21 League of Nations European Conference on Rural Life 1939—Technical documentation—Land reclamation and improvement in Europe, contribution by the International Institute of Agriculture (Document No. 4)

22 League of Nations European Conference on Rural Life 1939—General technical documentation—Sickness insurance and rural medical assistance, prepared by the International Labour Office.

23. League of Nations European Conference on Rural Life 1939—General technical documentation—Rural housing and planning—Report prepared under the auspices of the Health Committee.

24. League of Nations European Conference on Rural Life 1939—General technical documentation—Recreation in rural areas—Report prepared by the International Labour Office.

25 League of Nations—European Conference on Rural Life 1939—General technical documentation—Intellectual aspects of rural life, prepared by the International Institute of Intellectual Co-operation.

26. League of Nations European Conference on Rural Life 1939—General technical documentation—Co-operative action in rural life, Survey prepared by the Co-operation Service of the International Labour Office

27. League of Nations European Conference on Rural Life—General technical documentation—Rural dietaries in Europe—Annex. Report on bread. Report prepared under the auspices of the Health Committee.

28 Document No. II—Economic and Financial, 1939, II-A. 2—Urban and Rural Housing

29. Annual report on the results of radiotherapy in cancer of the uterine cervix—third volume—Stats: of results obtained in 1932 and previous years (collated in 1938).

30 League of Nations document "The aims and organisation of museums of schools of Hygiene" by Prof. Pransnitz

31. Health Bulletin No 27—Report of an enquiry into the causes of maternal mortality in Calcutta, by Dr M. I. Neal Edwards, M.D., W.M.S., Professor of Maternity and Child Welfare, All-India Institute of Hygiene and Public Health, Calcutta
- 32 Health Bulletin No 28—Rice
- 33 Revised and enlarged edition of Health Bulletin No 23—The Nutritive value of Indian Foods and the planning of satisfactory diets
- 34 Health Bulletin No 1 (revised edition)—Hookworm infection in India with notes on symptoms treatment and prophylaxis by P. A. Maplestone, D.S.O., D.Sc., M.B.B.S., D.T.M. & S. and A. K. Mukerjee, M.B.
- 35 Health Bulletin No 7 (revised edition)—Dracontiasis or guineaworm disease by P. A. Maplestone, D.S.O., D.Sc., M.B.B.S., D.T.M. & S. and Sundar Rao, L.M.P.
- 36 Fourth edition of Health Bulletin No 14—Malaria Bureau No 6—How to do a Malaria Survey revised by Lt.-Col G. Covell, I.M.S.
37. Second edition of Health Bulletin No 18—Malaria Bureau No. 9—A Practical course for students of malariology, revised by Dr I. M. Puri, M.Sc., Ph.D., F.R.C.S.
- 38 Health Bulletin No 21 (revised edition)—A note on hydrocyanic acid gas fumigation of rat burrows as an anti-plague measure, by Lt.-Col W. J. Webster, M.C., I.M.S.
- 39 Revised edition of Health Bulletin No 13—Instructions for collecting and forwarding mosquitoes by Dr I. M. Puri
- 40 Memo on water sterilisation Chlorination and dechlorination.
- 41 Establishment of laboratories at suitable centres for the free examination of clinical material from cases of infectious disease. Note by Col H. Stott, O.B.E., V.H.S., I.M.S., Inspector General of Civil Hospitals, Bihar.
- 42 Radio talks on dietetics by Mr A. K. Sundarajan.
- 43 Mysore Department of Health Education. A short note on the working of the Bureau of Health Education
- 44 Influence of environment on the incidence of tuberculosis. Paper read by Lt.-Col E. Cotter, I.M.S., at the 2nd Tuberculosis Workers' Conference, 1940
- 45 Health Bulletin No 11—Anti-mosquito measures with special reference to India, by Lt.-Col G. Covell, I.M.S., Director, Malaria Institute of India (Fifth edition)
- 46 Health Bulletin No 16—Synoptic tables for the identification of the full-grown larvae of the Indian Anopheline Mosquitoes, by Dr. I. M. Puri, Entomologist, Malaria Institute of India, IV edition.
47. Health Bulletin No 23—The Nutritive value of Indian Foods and the planning of satisfactory diets—Third edition, revised and enlarged, 1941.
- 48 Health Bulletin No. 29—Report on an investigation into the cause of maternal mortality in the city of Bombay, by Dr. Jhurad, M.D., B.S. (Lond.).
49. Health Bulletin No. 30—"Food and diet" (written for children)—by Dr. W. R. Aykroyd, M.D.
- 50 Health Bulletin No. 31—The Home frequenting flies, their relation to diseases and their control—by Dr. I. M. Puri
51. Pamphlet on 'Yellow Fever'.
52. Yellow Fever Diagnostic Chart
53. Report on the Medical Inspection of School children and the teaching of Hygiene in Schools by the Joint Committee appointed by the Central Advisory Board of Health and the Central Advisory Board of Education (1941)
- 54 Report on Leprosy and its control in India by the Committee appointed by the Central Advisory Board of Health (1941)

APPENDIX IX.

(AGENDA ITEM NO. 11)

Memorandum by the Director-General, Indian Medical Service, on the Development of the Nursing Services in India and the appointment of a Director of Nursing Services in the Medical Departments of Provinces and States in India.

ROLE OF THE NURSE.

The success of the work of the medical profession depends to a very large extent on an adequate supply of trained nurses. The role of the doctor is to prescribe treatment, and in special circumstances to carry it out, but the hour to hour care of the patient on which his comfort, both physical and mental depends, devolves on the nurse. The value of skilled care by a competent nurse would be difficult to exaggerate, the final issue, recovery or death, is not infrequently determined by the quality of the nursing services provided; but apart from this, the relief which sympathetic and skilful care can give to the suffering and anxiety of the patient is a matter of no small moment to the course of his disease.

SHORTAGE OF NURSES.

In the "Indian Medical Review" published in 1939 figures are given showing the number of hospital beds available in India and the staffing of the hospitals. The following table summarises the position:—

Hospital beds and staff in British India.

—	Total beds.	Trained nurses.	Untrained staff	Mid-wives.	Total staff.	Beds per attendant.	Beds per trained nurse.
Hospitals with 20 beds and over.	51,488	3,259	3,517	565	7,341	7	13
Hospitals with less than 20 beds.	14,195	743	53	82	878	16	19
	65,683	4,002	3,570	647	8,219

Calculated on the reasonable though not ideal basis of one nurse for four beds, the number of nurses required for 65,683 beds is 16,420 or almost double the number now employed. Replies to a questionnaire on Nursing issued in 1942 show that the position has not materially changed. While individual hospitals in each province have experienced no difficulty in securing trained nurses in adequate numbers, the majority of the replies, 74 out of 102, state that there is a shortage of trained nurses for civil hospitals.

The difficulties encountered in staffing military hospitals and the creation of an auxiliary nursing service are an additional index of the present shortage. The inauguration, during war-time, of post-graduate training courses for sister tutors and hospital nursing administrators at the Lady Reading Health School, Delhi, emphasises the urgency which the Government of India attach to schemes for improving both the quality and quantity of the nursing services available.

A progressive hospital policy, with more beds, improved standards of service and treatment, and better working conditions in hospitals is to be expected after the war and will create a still greater demand for nurses in the not far distant future.

From statistical evidence alone it can be definitely concluded that there is a serious shortage of nurses. Further the replies to the questionnaire on Nursing give evidence that the nursing staff is only maintained at the present low level by the acceptance of candidates who are not up to the educational standard desirable.

CONDITIONS OF SERVICE.

The shortage of nurses is closely linked with the conditions under which the nurses live and work. Hospitals are maintained by a variety of local authorities and private bodies and there is no uniformity in the scales of pay and allowances or in the hours of work. The accommodation and messing arrangements provided for the nursing staff differ widely. Long hours, uncomfortable quarters, indifferent food and low salaries may, however, weigh less with the prospective recruit than the lack of facilities for social life. Unduly severe discipline in the wards, restrictions on the nurses' liberty of action during off duty hours, or lax arrangements for her protection and security of tenure are additional deterrents to recruitment. The sum total of the conditions of life and work of the nurse determine the status of the profession in the eyes of the public and the present low status of the nursing profession in India is undoubtedly a basic cause of the shortage of nurses.

IMPROVEMENT IN THE CONDITIONS OF SERVICE.

The staffing of hospitals and the conditions of service of the nurses rests at the moment with a variety of local authorities. The financial resources of these local authorities are limited and a nursing service of good quality can only be made available within a reasonable time if additional help is forthcoming from provincial government sources. Financial aid is not the only form of help required. The selection and posting of candidates for specialist posts, for general service and for training is a field in which expert opinion would be invaluable to local authorities. The knowledge that expert advice was available on the conditions of service would do much to promote confidence amongst the nurses and to eliminate many of the obstacles to recruitment.

PROVINCIAL NURSING SERVICE.

The most effective solution to the problem of aiding local authorities to improve the standard of nursing in Indian hospitals and of securing uniformity in the conditions of service would appear to be the creation of a provincial nursing service with a provincial cadre of nurses, in the first instance for the posts above the rank of staff nurse or staff midwife and later extending to all ranks.

DIRECTOR OF NURSING.

A necessary concomitant to the establishment of a provincial nursing service is the creation of an agency for the general administration of the service, for the administration of government grants in-aid, for the organisation of nursing education both undergraduate and post-graduate, for an information service designed to enlighten and stimulate local authorities and for the development of the services in an orderly, co-ordinated and relatively uniform manner throughout India. Until an agency specifically charged with the advancement of nursing is established in each province, the standards of nursing in Indian hospitals are likely to remain low, the staffing of the hospitals to be inadequate, nursing education to be haphazard, limited and unrelated to the needs of the community and the conditions of work to be unattractive to girls of good social status and education. Nursing is a specialist profession requiring for its sound development, direction by someone with a specific technical training, an intimate knowledge and experience of the profession, as well as administrative ability and a broad outlook. Only a member of the nursing profession can fulfil all these conditions and the appointment of a well qualified and experienced nurse in the medical department of each Province and State as Director of Nursing

Services under the general supervision of the Administrative Medical Officer is recommended for the sound development of the nursing services throughout India. In the major provinces a full time appointment will be necessary, in smaller provinces or in the larger provinces until progress has been made with the development of a provincial nursing service, a combined post of Registrar to the Nurses Registration Council and Director of Nursing Services is likely to meet the situation.

URGENCY OF THE PROBLEM.

The present emergency has brought home forcibly to the authorities responsible for the staffing of military hospitals the urgency of taking all possible measures to increase the number of trained nurses and midwives in the country. The School of Nursing Administration recently opened by the Government of India will provide an adequately trained teaching staff but if students, both male and female, of good educational qualifications, are to be attracted to the profession, a concurrent improvement in the conditions of nursing service is a matter of the utmost importance.

APPENDIX X

(AGENDA ITEM No. 12)

Memorandum on the United Nations Conference on Food and Agriculture, May 18th to June 3rd, 1943, with reference to its findings on the subject of Food and Health by Dr. W. R. Aykroyd, Director, Nutrition Research, Indian Research Fund Association, Coonoor, S. India (Delegate to the Conference).

The Food Conference—as the United Nations Conference on Food and Agriculture may be called for short—was convened to consider problems of food production, food distribution and agriculture. It was not primarily a health conference and health and nutrition experts were in a small minority. Nevertheless the relation between proper food and health was one of the basic ideas underlying its deliberations. The slogan “marry health and agriculture”, which impressed the League of Nations in 1935 does not appear in its report but most of the subject matter and recommendations are in tune with it. The report, signed by the representatives of 44 nations, is thus of importance to public health authorities throughout the world.

DIET AND HEALTH

The Conference, after referring to the remarkable advance in the science of nutrition which has taken place during the present century, summarised the bearing of the newer knowledge of nutrition on human affairs in the following four sentences:

“1. The kind of diet which man requires for health has been established.

2. Investigations in many parts of the world have shown that the diets consumed by the greater part of mankind are nutritionally unsatisfactory.

3. Diets which do not conform with the principles of satisfactory nutrition lead to impaired physical development, ill-health, and untimely death.

4. Through diet a new level of health can be attained, enabling mankind to develop inherited capacities to the fullest extent”.

Strong statements were made on the subject of nutrition and health. “Malnutrition is the close and constant companion of poverty, both national and individual. Poverty almost invariably means a poor and insufficient diet and the latter is the main cause of the disadvantage of the poor in respect of health, so clearly shown by statistics of disease and mortality”. It was suggested that the high infant and childhood mortality in many countries, including India, has its roots in malnutrition. Diet deficiency reduces resistance to various kinds of disease, e.g., tuberculo-sis, and makes convalescence more difficult and prolonged. “There is a close relation between such diseases as hookworm and malaria and malnutrition. In the first place, the economic efficiency of a population in which they are rife is reduced and with it their capacity to produce or purchase an adequate supply of food. Secondly, malnutrition decreases the power of the individual to carry the burden of blood-destroying diseases and impedes his recovery when the burden is decreased or removed by medical treatment. A vicious circle is thus created”.

power to build in every nation a people more fit, more vigorous, more competent; a people with longer, more productive lives, and with more physical and mental stamina than the world has ever known. Such prospects, remote though they may be should serve as a stimulus in undertaking immediate tasks and overcoming immediate obstacles".

"VULNERABLE" GROUPS

The Conference laid considerable stress on the need for improving the diet of various groups in the population which are specially liable to suffer from the ill-effects of malnutrition. Among these are pregnant and nursing women, infants, pre-school and school children and adolescents (*e.g.* students). Maternity and child-welfare, school medical inspection and school-feeding schemes are included in the public health sphere and it is the responsibility of public health authorities to encourage their development with special reference to the nutritional side. Such development is in general conformity with reports on maternity and child-welfare work in India and the medical inspection of school children which have been accepted and issued by the Central Advisory Board of Health.

NATIONAL NUTRITION ORGANIZATIONS

One of the formal recommendations was concerned with the establishment in each country of nutrition committees or organisations which should include authorities on health, nutrition, economics and agriculture, together with administrators and consumers' representatives. In making this recommendation the Conference followed the lead of the League of Nations, which before the war had succeeded in bringing into being national nutrition committees in a number of countries. Some of these did sound and useful work. It was further advocated that the national committees should exchange information and experience and that representatives of the committees should meet regularly "to exchange views and to make proposals for any national and international action necessary to facilitate the progress of their work". It will be one of the tasks of the permanent organisation created by the Conference to arrange such meetings and in general to act as a link between national nutrition committees.

In so large a country as India it would be advantageous if Provincial and State nutrition committees could be established. Such committees could not, however, work effectively unless an expert on nutrition is included among its members. The Conference strongly recommended that "a worker or workers with specialised training on nutrition should be included in each major public health department. Such workers require advanced training and wide knowledge of the subject, which can be attained only by special study and research experience".

EDUCATION ON NUTRITION.

"Education in nutrition is now simply a matter of urging the consumer to follow particular dietary practices. It is necessary to spread knowledge of nutrition throughout the whole community so that it may influence governmental action and all who are in a position to influence the consumer in his choice of food. Those directly concerned with technical problems of nutrition need, of course, a high degree of specialized knowledge. In the general instruction of the community, however, emphasis should be laid on certain simple ideas and subjects.

A variety of methods for spreading knowledge of nutrition can be employed. Simple facts about food and diet should be taught in all schools. In the case of older children, more extensive instruction may be given, supplemented by courses in home economics or domestic science for girls. Children teach their parents, and the education of children helps to spread knowledge of the subject throughout the country. Housewives may also be taught directly by home visits or groups instruction.

Use can be made of printed and visual educational material to teach the public about food and diet. Under this head may be included pamphlets, posters, articles in the daily press and in weekly and monthly magazines, educational films, gramophone records, demonstrations, and exhibits. The radio can also be used for this purpose. In certain countries community groups can be encouraged to discuss nutrition questions and co-operative methods of dealing with problems of food production and distribution on a community basis.

Education on nutrition must be adapted to the circumstances of each country, and the emphasis on particular aspects of the subject will vary from place to place.

NUTRITION AND AGRICULTURAL POLICY

Since the health of a community is influenced by the food it consumes, agricultural policy must be based on a scientific assessment of the food requirements of the population. This implies close collaboration between health, nutrition and agricultural authorities. Various standards of adequate nutrition have been approved by nutrition workers, these recommend the amounts of nutrients or food constituents necessary to ensure for human beings a high level of health and vitality, in so far as this can be ensured by diet. One of these—that put forward by the National Research Council, U. S. A., in 1943—is quoted in the Conference Report and translated from terms of calories, proteins, vitamins, etc., into foods per capita per year. The National Research Council standard means essentially a rich and varied diet containing an abundance of milk, meat, eggs, vegetables and fruits and a relatively low proportion of cereals—it is a standard closely resembling that drawn up in 1936 by the Technical Commission on Nutrition of the League of Nations. Now if such a standard be adopted as the immediate goal in a poor and ill-fed country, the gulf between the standard and existing level of diet is so great that the value of the standard as a guide to national food, agricultural and economic policy is lost. It becomes necessary, therefore, to set up more easily attainable goals for purposes of practical nutrition work. Recommendations for improvement must be so adjusted as to raise the existing level of diets to a degree which is not beyond the bounds of practical possibility and which, at all events, makes it less remote from the 'optimum' standard. 'With the continued and expanding application of science to the development of the world's food resources, local intermediate goals can be gradually raised in the direction of the ultimate objective.'

The first step, in planning nutritional policies, is to estimate the average consumption of the various foods by the population concerned, preferably on a per capita basis. The rough data about food intake so obtained should be checked by family diet surveys. The state of nutrition of the population should be investigated by medical and public health workers. In this way the defects in the national diet will be made manifest. The adjustment of agricultural and economic policy to correct the defects follows. When the existing level of diet is a low one, an 'intermediate objective' as defined above must be aimed at. Often the first necessity is enough food, without much regard for variety and quality. If, however, enough food can be made available, and there is at the same time some degree of variety, qualitative defects in the diet, e.g., in intake of protein, vitamins, etc., will be very considerably reduced.

in themselves of high nutritive value but which may be of importance in that they increase the attractiveness of monotonous diets. Various traditional methods of preparing food may have more virtue than modern nutrition workers suspect. "Nutritional and agricultural policies which ignore traditional methods of 'enlivening' monotonous diets may defeat their own ends. Such methods should usually be regarded with respect The aim of those whose task it is to secure the improvement of nutrition should be to frame their policies so that they are in tune with and can become part of the social tradition".

VARIOUS QUESTIONS.

The Conference referred briefly to various other subjects of public health interest. Among these are the desirability of minimising losses of nutrients during the processing of food and the "fortification" of foods by vitamins and vitamin concentrates. Recently processes for milling wheat have been introduced in Canada, Great Britain and the United States of America which have the effect of producing a flour acceptable to the consumer, retaining a high proportion of the vitamins and other nutrients present in the original grain. On the other hand, it is now the general practice in U S A. to enrich *refined* wheat flour used for bread-making and other purposes by adding to it synthetic vitamins of the B group. Owing to the production of synthetic vitamins cheaply on a large scale, the question of 'fortifying' foods by additional vitamins is becoming one of great interest and importance. The earliest example of successful "fortification" is "vitaminised" margarine, i.e., margarine to which concentrates of vitamins A and D have been added to give it a vitamin content equivalent to that of good butter.

The Conference did not recommend the indiscriminate distribution of synthetic vitamins as a public health procedure. After the war, there is likely to be an enormous boom in the production of synthetic vitamins and the place of synthetic vitamins in public health programmes is a question which must be approached cautiously by public health authorities. The Conference remarked that "synthetic vitamins are of great value in the medical treatment of deficiency diseases and may be useful for prophylaxis in certain special circumstances". It added that "the possibility of producing dried yeast on a large scale in countries in which abundant supplies of sugarcane molasses, or other cheap sources of fermentable carbohydrates, are available should receive careful consideration. Cheap preparations of fish liver oil, e.g., shark liver oil, could be produced in various parts of the world and widely used to improve the health of children and of others who may need vitamins A and D". In India a small industry for the production of shark liver oil has already been successfully developed.

The Conference also referred briefly to the control of the advertising of vitamin and food preparations in general. "It is the responsibility of governments to ensure that the consumer is not misled as to the content of foods, vitamin products, food extracts and other preparations derived from foodstuffs. Regulations should be adopted to provide for correct labelling and to insure that numerical statements should not be such as to convey the impression that what are really negligible quantities of a nutrient make a significant contribution to human requirements".

In conclusion, it may be remarked that the whole trend of the section of the Conference report concerned with nutrition is to emphasise the growing responsibility of public health authorities in this field. "The movement for better nutrition", the report remarks, "must take place with the full collaboration of public health and agricultural authorities, and the former must play a prominent part in its guidance". On this point an article* on the Conference written by Thomas Parran, Surgeon-General, United States Public Health Service, may be quoted:

* U. S. Public Health Reports, June 11, 1943, No. 24, page 893, : "A blue print for the Conquest of Hunger."

"Of greatest significance to the public health profession was the responsibility placed by the Conference of medical and health authorities in the attainment of the world-wide goals there defined. Nutrition is linked on the one hand with public health, on the other with agriculture. At all stages, from the recognition of the existence of malnutrition in a community to its elimination, knowledge of the behaviour of the human body is essential. Because they possess and can contribute this knowledge, medical and health administrators have a primary responsibility in nutritional fields. Any advance in health through better nutrition will demand the full collaboration of public health and agricultural authorities. The former will play an important role both in determining needs and in guiding the available forces towards the practical attainment of freedom from hunger for the peoples of the world".

Cornoor, August 9th, 1943

APPENDIX

RECOMMENDATIONS OF THE CONFERENCE CONCERNED WITH NUTRITION

The final Plenary Session was held on June 3, 1943. As a result of the deliberations, as recorded in the minutes and reports of the respective Committees and Sections and of the Plenary Sessions, the United Nations Conference on Food and Agriculture approved the following declaration, resolution and recommendations:—

1

DECLARATION

This Conference, meeting in the midst of the greatest war ever waged, and in full confidence of victory, has considered the world problems of food and agriculture and declares its belief that the goal of freedom from want of food, suitable and adequate for the health and strength of all peoples, can be achieved.

1. The first task is to complete the winning of the war and to deliver millions of people from tyranny and from hunger. During the period of critical shortage in the aftermath of war, freedom from hunger can be achieved only by urgent and concerted efforts to economize consumption, to increase supplies and distribute them to the best advantage.

2. Thereafter we must equally concert our efforts to win and maintain freedom from fear and freedom from want. The one cannot be achieved without the other.

3. There has never been enough food for the health of all people. This is justified neither by ignorance nor by the harshness of nature. Production of food must be greatly expanded, we now have knowledge of the means by which this can be done. It requires imagination and firm will on the part of each government and people to make use of that knowledge.

4. The first cause of hunger and malnutrition is poverty. It is useless to produce more food unless men and nations provide the markets to absorb it. There must be an expansion of the whole world economy to provide the purchasing power sufficient to maintain an adequate diet for all. With full employment in all countries, enlarged industrial production, the absence of exploitation, and increasing flow of trade within and between countries, an orderly management of domestic and international investment and currencies, and sustained internal and international economic equilibrium, the food which is produced can be made available to all people.

5. The primary responsibility lies with each nation for seeing that its own people have the food needed for life and health. Steps to this end are for

7. The first steps toward freedom from want of food must not await the final solution of all other problems. Each advance made in one field will strengthen and quicken advance in all others. Work already begun must be continued. Once the war has been won decisive steps can be taken. We must make ready now.

II

INTERIM AND PERMANENT COMMISSIONS FOR CARRYING OUT THE RECOMMENDATIONS OF THE UNITED NATIONS CONFERENCE ON FOOD AND AGRICULTURE.

Whereas

1 Freedom from want is difficult to achieve without concerted action among all like-minded nations to expand and improve production, to increase employment, to raise levels of consumption, and to establish greater freedom in international commerce,

2 The successful carrying out of the recommendations of the Conference in the field of production, distribution, and consumption of food and other agricultural products in the post-war period will be the most important pre-requisite for the achievement of freedom from want, and requires the creation by the governments and authorities here represented of a permanent organization in the field of food and agriculture, therefore,

The United Nations Conference on Food and Agriculture recommends:

1 That the governments and authorities here represented recognize and embody in a formal declaration or agreement the obligation to their respective peoples and to one another, henceforth to collaborate in raising levels of nutrition and standards of living of their peoples, and to report to one another on the progress achieved,

2 That the governments and authorities here represented establish a permanent organization in the field of food and agriculture, and

resolves

1 That in order that, every practicable step may be taken to attain these and the other appropriate objectives set forth in the declaration and specific recommendations of the Conference, an Interim Commission for carrying out the recommendations of the United Nations Conference on Food and Agriculture be established,

2. That each of the governments and authorities here represented be entitled to designate a representative on the Interim Commission, and that the Interim Commission be installed in Washington not later than July 15, 1913,

3. That the Interim Commission perform its work with due regard to the exigencies of the war, through such form of organization and personnel as it may deem appropriate, and formulate regulations covering its expenditures and submit to the member governments and authorities a budget and allocation of quota contributions;

4 That the functions of the Interim Commission be to formulate and recommend for consideration by each member government or authority;

(a) A specific plan for a permanent organization in the field of food and agriculture;

(b) The formal declaration or agreement referred to in the first recommendation, in which each participant shall recognize its obligation;

(i) To raise the levels of nutrition and standards of living of its own people;

(ii) To improve the efficiency of agricultural production and distribution;

(iii) To co-operate, so far as may be possible, with other nations for the achievement of these ends;

(iv) To undertake to submit periodically to the other participants, through the permanent organization, reports on the action taken and the progress achieved towards these ends

(c) Such proposals or reports as are necessary to give effect to the recommendations of the Conference;

5 That in the preparation of a plan for the permanent organization the Interim Commission give full consideration to the following

(a) The relation of the permanent organization to, and methods of associating it with, other institutions, national as well as international, which already exist or which may hereafter be established, in the field of food and agriculture and in related scientific, economic and other fields.

(b) Provision for membership in the permanent organization in due course, of governments not represented on the Interim Commission

6 That in considering the functions and duties to be assigned to the permanent organization the Interim Commission take into account

(a) The promotion of scientific, technological, social, and economic research.

(b) The collection and dissemination of information and provision for the exchange of services.

(c) The submission to member governments and authorities of recommendations for action with regard to the following

(i) Nutrition,

(ii) Standards of consumption of food and other agricultural products.

(iii) Agricultural production, distribution, and conservation,

(iv) Statistics and economic studies in the field of agriculture and food, including the study of the relation of agriculture to world economy,

(v) Education and extension work in the field of food and agriculture;

(vi) Agricultural credit,

(vii) Problems of agricultural population and farm labour,

7 That the Interim Commission further consider the desirability of assigning to the permanent organization functions in the field of.

(a) Development of agricultural resources and orientation of production, where necessary

(b) Agricultural commodity arrangements,

(c) Agricultural co-operative movements,

(d) Land tenure;

(e) Other subjects on which recommendations have been made by the Conference;

8. That the Interim Commission also consider the initiation of preliminary statistical investigations and research into the problems with which the permanent organization will deal.

9 That the Interim Commission be deemed to have been dissolved when the permanent organization has been established;

10. That the Government of the United States of America be invited to take whatever preliminary action may be necessary for the establishment of the Interim Commission after the United Nations Conference on Food and Agriculture has completed its work.

III

IMPROVEMENT OF NATIONAL DIETS

The United Nations Conference on Food and Agriculture

Having reviewed the information submitted by the several delegations on consumption, deficiencies and the relation of food to health throughout the world and being deeply impressed by the dominant role played by adequate food in the reduction of sickness and death rates and the maintenance of health

declares:

1. That the first essential of a decent standard of living is the provision to all men of those primary necessities which are required to promote freedom from disease, and for the attainment of good health;

2 That the most fundamental of these necessities is adequate food which should be placed within the reach of all people in all lands within the shortest possible time;

3. That ample evidence has been presented revealing the existence of malnutrition in every country with its inevitable consequences of preventable ill health; and

recommends.

1. That the governments and authorities here represented:

(a) Immediately undertake the task of increasing the food resources and improving the diets of their people in accordance with the principles and objectives outlined in the findings of the Conference, and declare to their respective peoples and to other governments and authorities here represented their intention of so doing,

(b) Undertake periodically to report to one another through the permanent organization recommended in Resolution II on the state of their national nutrition and on the steps being taken for its improvement

IV

DIETS OF VULNERABLE GROUPS

Whereas

1. There are special needs of vulnerable groups, such as pregnant and nursing women, infants, pre-school and school children, adolescents, workers, and individuals receiving low incomes;

2. Families with numerous children in low-income groups are particularly vulnerable,

3. Social, economic, and health measures of various kinds are or should be provided for these groups,

4. Wide experience has shown that direct measures to supplement inadequate diets have been economical and fruitful,

The United Nations Conference on Food and Agriculture recommends:

That the several governments and authorities here represented, undertake positive measures for the improvement of the diets of the vulnerable groups enumerated above.

V

MALNUTRITION AND DISEASE

Whereas.

1. Malnutrition is responsible for widespread impairment of human efficiency and for an enormous amount of ill health and disease, reduces the resistance of the body to tuberculosis, and enhances the general incidence and severity of familiar diseases;

2. Mortality rates in infants, children, and mothers are higher in ill-fed than in well-fed populations,*

3. Food consumption at a level merely sufficient to prevent malnutrition is not enough to promote health and well-being,

The United Nations Conference on Food and Agriculture recommends:

1. That the governments and authorities here represented:

(a) Initiate or continue the study of the relationship between malnutrition and impaired bodily health and vigour; and, in particular, investigate the role of inadequate food consumption in the causation of, and mortality from, all those diseases which constitute their most serious health problems;

(b) Direct their attention to the study of health and well-being and of the nutritional and related factors which are necessary to secure and maintain them;

(c) Consider the most effective means of disseminating knowledge of correct feeding among all sections of the population

* Obviously this is impossible for governments whose territory is entirely or partly occupied by enemy forces.

DEFICIENCY DISEASES

Whereas:

1. The progressive improvement of diets will result in better health and eventually in the elimination of specific deficiency diseases, and a great deal of unnecessary suffering could be avoided if an immediate and concerted attack were made upon them,

2. Progress in our knowledge of nutrition makes it possible to seek out, treat successfully, and prevent the recurrence of the common diseases resulting from specific deficiencies in the diet,

The United Nations Conference on Food and Agriculture recommends.

1. That the several governments and authorities here represented undertake immediately

(a) To ascertain the prevalence of specific deficiency diseases among their respective peoples,

(b) To deal with them by suitable dietary and therapeutic measures;

(c) To take appropriate steps to prevent their recurrence

VII

NATIONAL NUTRITION ORGANIZATIONS

Whereas:

1. A sound food and nutrition policy must be adopted by each government if national diets are to be progressively improved, specific deficiency diseases eliminated, and good health achieved;

2. Such a policy requires the guidance of a central authority with special competence and responsibility to interpret the science of nutrition in the light of national conditions and to propose to the appropriate authorities practical means for extending its benefits to all sections of society;

The United Nations Conference on Food and Agriculture recommends:

1. That the governments and authorities here represented:

(a) Undertake to establish national nutrition organization, if such do not now exist, entrusted with the responsibility of ascertaining food-consumption habits and the nutritional status of different sections of the population; such organizations to be composed of authorities in health, nutrition, economics, and agriculture, together with administrators and consumers representatives, etc., to be provided with adequate funds and facilities for the efficient conduct of their work, and to have the authority to bring their recommendations to the attention of the public and to those agencies of government which deal with agriculture and the framing of economic and social policy;

(b) Re-examine and, if necessary, reorganize existing agencies and review legislation concerned with health, agriculture, and nutrition to the end that food and nutrition policies may be efficiently carried out

VIII

EXCHANGE OF INFORMATION AND EXPERIENCE.

Whereas:

1. Experience has shown that national nutrition organizations receive considerable benefit from periodic exchanges of views and information on methods employed, obstacles encountered, and progress achieved;

2. Governments participating in a common undertaking will wish to collaborate so that levels of food consumption may become more equitable not only among the different sections of the population in a given country but among the several nations of the world as well;

The United Nations Conference on Food and Agriculture recommends:

1. That the several national nutrition organizations exchange information and experience and provide mutual assistance, both directly, when desirable, and through the permanent organization recommended in Resolution II, to which they should submit periodic reports on the results of their investigations into national dietary habits and nutritional status, and on the progress achieved in raising the level of food-consumption throughout the population;

3. That ample evidence has been presented revealing the existence of malnutrition in every country with its inevitable consequences of preventable ill health; and

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1. That the governments and authorities here represented.

(a) Immediately undertake the task of increasing the food resources and improving the diets of their people in accordance with the principles and objectives outlined in the findings of the Conference, and declare to their respective peoples and to other governments and authorities here represented their intention of so doing;

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(b) Direct their attention to the study of health and well-being and of the nutritional and related factors which are necessary to secure and maintain them;

(c) Consider the most effective means of disseminating knowledge of correct feeding among all sections of the population

* Obviously this is impossible for governments whose territory is entirely or partly occupied by enemy forces.

